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PARENT SATISFACTION WITH SCHOOL SERVICES FOR CHILDREN WITH AUTISM
SPECTRUM DISORDERS: THE MEANING OF SATISFACTION

BY

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DISSERTATION

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Abstract

This study addresses the gaps and limitations in the literature by examining parent satisfaction with the school services that their young children with ASD are receiving, using a mixed methods approach that includes interview and survey methodology. Sixteen parents of children with ASD participated in the study. The results reveal that although the majority of the parents reported that they were satisfied with school services, when asked about how they judged “satisfaction” during the interview they provided many reasons as to why they were not satisfied. The rationale they provided was consistent with aspects of school services used to measure parent satisfaction in the literature including *parent-school communication, staff competence, staff attitudes, amount of services, addressing child needs or concerns, and child progress*. The rationale also was closely related to why parents were satisfied with private services. Finally, parents offered recommendations to enhance parent satisfaction with public school services.

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
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Chapter 1

Introduction

During the last two decades, American schools have experienced a precipitous increase in the number of students diagnosed with Autism Spectrum Disorder (ASD). According to the Data Accountability Center (Office of Special Education Programs, OSEP, 2011), the number of children with ASD receiving services through their school districts was 65,000 in 1999 to 2000. This number increased to 378,000 in 2009 to 2010, which is an increase of 482 percent. To address the unique needs of these children, public schools currently have more than 40 different services available for children with ASD such as speech therapy, assistive technology, and cognitive behavioral modification (Hess, Morrier, Eflin, & Ivey, 2008).

Several studies show that children with ASD receive, on average, more services than other children with disabilities. For example, Bitterman, Daley, Misra, Carlson, and Markowitz (2008) described the special education and related services received by a nationally representative sample of young children with ASD based on the Pre-Elementary Education Longitudinal Study (PEELS). Results showed that children with ASD received 5.4 services on average, which is significantly greater than the average number of services that children with other disabilities received (3.5). Similarly, Thomas, Morrissey, and McLaurin (2007) found that families used on average of seven services, with some families using as many as 24 services at once.

Although children with ASD tend to receive more services than other children, their parents tend to be less satisfied with the services than parents of children with other disabilities (Bitterman et al., 2008). Increasing numbers of court cases and due process

hearings have been filed by parents of children with ASD against school districts because many parents believe that the public schools are not providing an *appropriate* education to which their children are entitled by the Individuals with Disabilities Education Act (Mandlawitz, 2002; Yell & Drasgow, 2000). Yell and Drasgow analyzed 45 published due process hearings and court cases, in which parents of children with ASD challenged the school districts' educational programs. The authors summarized the major areas of substantive violations, which included: (a) failing to provide needed services or a sufficient amount of services to students and (b) failing to make sufficient student progress. The results suggest that at least some parents of children with ASD are not satisfied with the services that their children are receiving in schools.

Parental satisfaction is important because it is one measure of social validity of school services. Social validity refers to the acceptability or importance of the goals, procedures, and outcomes of interventions (Kazdin, 1977; Wolf 1978). One method of measuring social validity is to collect a representative sample of consumers' perceptions and then use the information to maintain or change a program to enhance its validity in the community (Schwartz & Baer, 1991).

As key consumers of school services, parents can provide a valuable source of information. In fact, parent satisfaction has been frequently included as an outcome measure in evaluating services for children with disabilities (Bailey, Raspa, & Fox, 2012). Understanding parents' satisfaction with an educational program might provide insight regarding if the school system has adopted appropriate goals, acceptable procedures, and desirable outcomes for the children it serves. Such data might help practitioners, administrators, and policy makers create family-centered services that are highly valued

in early childhood special education (Bailey et al.). The results also might provide guidance on educating parents who sometimes favor services that lack scientific evidence (e.g., Goin-Kochel, Mackintosh, & Myers, 2007).

Given the importance of evaluating parent satisfaction with school services, researchers have explored the satisfaction of the parents of children with a range of disabilities. For example, McNaughton (1994) reviewed 14 studies that included a measure of parent satisfaction with early intervention. He found that most studies required parents to rate their satisfaction with early intervention on a Likert scale, and that parent satisfaction in all the reviewed studies was high (ranging from 4.0 to 4.9 on a 5-point scale). Bailey, Skinner, Rodriguez, Gut, and Correa (1999) reported different results. They interviewed 200 Latino parents of young children with disabilities and rated each interview based on a 5-point scale they devised (i.e., 1 being not satisfied with any past or present services or service providers, and 5 being very satisfied with all past and present services and service providers). The authors found only 39% of their participants were mostly or very satisfied.

In addition to overall satisfaction, researchers have been interested in finding predictors of parent satisfaction with the services that their children with disabilities receive. These predictors include (a) awareness and use of services (Bailey et al., 1999), (b) children's age and severity of disability (Bailey et al.; Summers, Hoffman, Marquis, Turnbull, & Poston, 2005; Wang et al., 2004), (c) perceived involvement with their children's education and perceived school climate (Laws, 2001), and (d) parent level of education, family income, and ethnicity (Bailey, Scarborough, & Hebbeler, 2003; Wang et al.).

Only a handful of studies have examined parent satisfaction with the educational services that children with ASD receive (Bitterman et al., 2008; Kohler, 1999; Murphy & Ruble, 2012; Renty & Roeyers, 2006; Spann, Kohler, & Soenksen, 2003; Thomas et al., 2007). These researchers measured *satisfaction with services* based on their own conceptual frameworks using pre-set survey items. For example, in measuring *parent satisfaction with schools*, Bitterman et al. asked parents to rate their level of satisfaction regarding overall quality of special education and therapy services, the program, teachers, current services, and the need for more or additional services. Kohler measured *parents' overall satisfaction with existing services* by asking questions about benefits, needs, and concerns of the child or the family.

However, *satisfaction* is a complex concept viewed differently by different individuals. It is subject to each individual's views and interpretation and is also a fluid or relative concept that changes as new information is gathered (Oliver, 2010). Parents' satisfaction also is influenced by many factors including teachers, administrators, curriculum, technology, involvement, budget, ethnicity, age, and severity of disability (Friedman, Bobrowski, & Geraci, 2006; Laws, 2001; Summers et al., 2005; Wang et al., 2004). It is therefore difficult to truly *evaluate* and understand satisfaction using a single question or set of survey items.

To gather a more complete picture of parent satisfaction with the school services that their children with ASD are receiving, it is important to explore parent satisfaction from a qualitative perspective as well as a quantitative perspective. Asking parents *what they mean* when they say they are satisfied (or dissatisfied) with their children's services is as important as asking them *if they are satisfied* or *how much* they are satisfied (or

dissatisfied) with school services. The reasons why one parent says he or she is satisfied can be completely different from another parent. Each parent has his or her own narratives that contribute toward his or her meaning of satisfaction.

Therefore an interview study where parents can elaborate on their experiences regarding school satisfaction is an ideal way to extend our knowledge base on the complex concept of parent satisfaction. As Vygotsky (1987) noted, “The word is a microcosm of consciousness, related to consciousness like a living cell is related to an organism, like an atom is related to the cosmos” (p. 285). Through interviewing, we can understand “the experience of other people and the meaning they make of that experience” (Seidman, 1991, p.3).

Given that parent satisfaction is important in making educational decisions, in improving practices, and even in avoiding litigation, the purpose of this study was to understand parent satisfaction with the school services that their young children with ASD receive. By listening to parents’ voices, the following research questions were addressed:

1. What services do young children with ASD receive through their public school districts as reported by parents?
2. How do parents rate their satisfaction with the school services that their children with ASD receive?
3. What criteria do parents report that they use for judging satisfaction with services?
4. What recommendations do parents have for public schools in order to improve school services for their children with ASD?

Chapter 2

Literature Review

To understand parent satisfaction with the school services for their children with ASD, electronic and manual searches were conducted without limiting the years that research was published. The electronic search included ERIC, Educational Research Complete, and PsycINFO databases along with Google Scholar. The descriptors used in combination included *parent satisfaction*, *parent perception*, *education*, *school*, *service*, *treatment*, *approach*, *program*, and *autism*. A manual search included an examination of references from relevant articles.

The search was narrowed by examining the abstracts of selected studies. Because the focus of the search was on school services for children with ASD and parent satisfaction with them, the following types of studies were excluded. First, studies examining parent satisfaction with inclusion or their overall life satisfaction were excluded. Second, studies regarding parent satisfaction with a specific parent training program or intervention were excluded. Third, studies examining parent satisfaction with non-educational services only (e.g., medical and health services) were excluded.

Ten studies were located that focused on parent satisfaction with educational services provided to their children with ASD, but four of these investigations were excluded because they presented parents with a list of statements describing children's school experiences rather than providing parents with specific names of the services (Parsons, Lewis, & Ellins, 2009; Starr, Foy, Cramer, & Singh, 2006; Whitaker, 2007; Zablosky, Boswell, & Smith, 2012). For example, Whitaker developed a list of survey items describing children's school services, including *The school is flexible in adapting*

to my child's needs and *My child's academic progress is satisfactory*. Although these four studies also asked parents to rate their satisfaction with services, the way the *services* were presented in these studies (i.e., descriptions of school services) were different from the other six studies (i.e., specific services such as speech therapy and provision of an aide). Therefore the final selection included six peer-reviewed research articles that examined parent satisfaction with the educational services for their children with ASD (ages 2.69 to 18) (see Table 1).

Services addressed in these articles varied (see Table 2). They included therapies (e.g., speech therapy), educational practices and interventions (e.g., providing an aide, social skills training), services for family members (e.g., parent support classes), and medical or extracurricular services (e.g., casein-free diet, sports clubs). Four of the six studies (Bitterman et al., 2008; Kohler et al., 1999; Murphy & Ruble, 2012; Thomas et al., 2007) included services for parents (e.g., respite care and parent support groups) or medical/diet treatments (e.g., casein-free diet), but only the results related to educational services are highlighted in this review, when separate results were available.

All six reviewed studies employed survey methodology. The surveys were conducted through mail (Renty & Roeyers, 2006), by telephone (Bitterman et al., 2008; Kohler, 2000; Spann et al., 2003), and through more than one method including online surveys (Murphy & Ruble, 2012; Thomas et al., 2007). The response rate ranged from 64.3% (Renty & Roeyers) to 93% (Bitterman et al., 2008), however two studies did not report response rates (Murphy & Ruble; Thomas et al.). While the majority of the studies were conducted in the US, one study was conducted in Flanders (Renty & Roeyers).

This literature review consists of three parts. The first section includes an analysis and synthesis of the services that were addressed in the reviewed studies. The second section includes a discussion of how parent satisfaction was conceptualized and measured by the authors. The last section addresses gaps and limitations in the studies.

What Are School Services?

The range of services addressed in the six studies varied. Terms such as *service*, *program*, *treatment*, and *intervention* were used interchangeably. In this review, *service* is used as an umbrella term to cover all of these words. Two of the six studies confined their search to educational and related services that children and families received (Bitterman et al., 2008; Spann et al., 2003), with Bitterman and her colleagues examining only services provided by public school districts. The remaining four studies included non-educational services such as respite care, sports clubs, and diets (Kohler, 1999; Murphy & Ruble, 2012; Renty & Roeyers, 2006; Thomas et al., 2007).

The services addressed in the six studies were categorized into four types: (a) therapies, including occupational, physical, and speech therapy; (b) educational practices and interventions, including the provision of an aide or an interpreter, study skills assistance, and social skills training; (c) services for families, including parent training and sibling support classes; and (d) medical or extracurricular services. Examples of services that were included in each category are presented in Table 2.

Therapies. Typically researchers provided parents with a list of services and asked them to choose the ones that they had received during a certain period of time (e.g., the past six months). The list included therapies that are frequently provided to children with ASD such as occupational therapy, physical therapy, and speech therapy. Therapies

that are provided less frequently also were included in one of the studies (Thomas et al., 2007). Thomas et al. asked parents if they were using hippotherapy, play therapy, music therapy, holding therapy, dog therapy, dolphin therapy, sensory integration therapy, auditory integration, myofacial release, or aversives.

Educational practices and interventions. In all six studies, researchers asked parents to identify the educational practices and interventions that were provided to their children with ASD. These included personnel support such as a one-on-one aide and interpreter (Bitterman et al., 2008; Kohler, 1999; Spann et al., 2003), the use of augmentative and alternative communication (AAC) including Picture Exchange Communication System (PECS) (Bitterman et al.; Thomas et al., 2007), and interventions or training promoting social and behavioral development (Bitterman et al., Murphy & Ruble, 2012; Renty & Roeyers, 2006; Thomas et al.).

Services for families. Three of the six studies included services for families of children with ASD (Bitterman et al., 2008; Kohler, 1999; Thomas et al., 2007). Examples included parent classes, sibling support groups, family counseling, respite care, childcare, and after school care.

Medical or extracurricular services. Two studies included medical or extracurricular services as well as educational services. Renty and Roeyers (2006) asked parents if their children with ASD were receiving services such as sports clubs. Thomas et al. (2007) asked parents to identify the medical services that they have used from a list that included casein free diet, gluten free diet, specialized eye glasses, enzyme potentiated desensitization, immune system therapy, cranial electrical stimulation, and acupuncture.

The number of services listed was different in each study. For example, Thomas et al. (2007) provided parents with a list of 57 different services, including therapies, educational practices and interventions, services for family, and non-educational services. Meanwhile Bitterman et al. (2007) presented parents with a list of 24 different services provided in public schools. In contrast, Spann et al. (2003) asked parents to talk about only four services: occupational therapy, physical therapy, speech therapy, and paraprofessional.

Although each study focused on different types and numbers of services, speech therapy seemed to be the service used or wanted most frequently, followed by occupational therapy (Bitterman et al., 2008; Kohler, 1999; Murphy & Ruble, 2012; Spann et al., 2003; Thomas et al., 2007).

How Is Parent Satisfaction Measured?

The level of parental satisfaction in the reviewed studies was variable. Some researchers found that parents are highly satisfied with the services that their children with ASD were receiving while other researchers found the opposite results. For example, Bitterman et al. (2008) reported that 86.8% of their participants were satisfied with school services and Thomas et al. (2007) found that 81% of families were satisfied with school services. In contrast, Spann et al. (2003) noted that almost half of their participants (44%) were not satisfied with the school's ability to address their priorities and needs. Kohler (1999) reported similar results showing 64% of the parents of children with ASD thought that existing services or providers were ineffective and 40% of the parents thought their children needed additional services.

One plausible explanation for this inconsistency could be the different conceptual frameworks that each research team adopted to understand *parent satisfaction*.

Considerable variability was found in the survey items used to measure parent satisfaction with school services (Table 3). Descriptions of the survey items presented to parent participants in each study can be found in Table 4.

The reviewed studies used a variety of survey items, asking parents to rate their satisfaction with overall school services and specific aspects of the school services. These aspects can be categorized into four topics: (a) child-related aspects, (b) staff-related aspects, (c) family-related aspects, and (d) service-related aspects.

Child-related aspects. Child-related aspects include survey items that focused on child outcomes, or the school's ability to address a child's needs, concerns, or difficulties. For example, Kohler (1999) asked parents questions such as *Do these services provide important benefits to your child or family?* and *Does your child or family have any additional needs that are not being met by existing services?* Similarly, Spann et al. (2003) evaluated parent satisfaction by asking *What is your overall level of satisfaction with the school's ability to address your child's needs?*

Staff-related aspects. Staff-related aspects include survey items that addressed parent satisfaction with teacher quality and competence (including autism-specific knowledge), staff attitudes, and the continuity of staffing. For example, Bitterman et al. (2008) asked parents to rate their satisfaction with teachers. Along with survey items asking 244 parents of children with ASD to rate their overall satisfaction, Renty and Roeyers (2006) conducted interviews with a stratified sample of 15 parents. The themes

that emerged from the interviews included teacher competence (comprehensive knowledge of ASD) and commitment, and continuity of staffing.

Family-related aspects. Family-related aspects include survey items that focused on parent satisfaction with family outcomes, family needs or concerns, parent-school communication, and parent involvement. For example, in examining parents' involvement in and perceptions of special education services, Spann et al. (2003) asked parents to rate their satisfaction with home-school communication (i.e., low, moderate, or high). Kohler (1999) also asked questions regarding benefits for, and needs and concerns of the family in terms of the services that their children with ASD received. He reported that parents were satisfied overall.

Service-related aspects. Service-related aspects include survey items that addressed parent satisfaction with the special education program, autism-specific services, usefulness of the services, time with typical peers, quantity of services, and other services needed. For example, Bitterman et al. (2008) measured parents' needs for additional services (*Child needs more of services already received*) and other services (*Child needs services not currently received*). These authors described these data as measures of parent satisfaction with "certain aspects of the services their children received" (p. 1513). In describing parent satisfaction, the authors also included parents' ratings of their satisfaction with the amount of time that their children spent with typical peers in school. Thomas et al. (2007) asked parents if each particular service that they were using was useful. The "perceived usefulness by service" (p. 824) was reported as family satisfaction with each service.

Interestingly, several research teams equated satisfaction with concepts such as needs (Bitterman et al., 2008; Kohler, 1999; Renty & Roeyers, 2006), concerns or problems (Kohler), benefits (Kohler), happiness (Murphy & Ruble, 2012), and usefulness (Thomas et al., 2007). The concept that was used most frequently in place of satisfaction was *needs*. This is not surprising given that the dictionary definition of satisfaction is *fulfillment of a need or want* (Satisfaction, 2013).

Three of the six studies described parents' responses to a question about child or family needs as parent satisfaction. In Bitterman et al. (2008) and Kohler (1999), parents' ideas about child or family needs for additional services were considered parent satisfaction. Similarly, Renty and Ryeyers (2006) asked parents to rate the degree to which their school fulfilled the needs of their child with ASD, and the authors described these results as parent satisfaction.

Kohler reported parent responses to the following two survey items as representing parent satisfaction: *Do these services provide important benefits to your child or family?* and *Do you have any unresolved problems or concerns at this time?* He also conceptualized parents' perceived benefits to the child and family as parent satisfaction. Murphy and Ruble used one survey item to measure parents' overall satisfaction with school services; and they used the word *happy* instead of *satisfied* in their survey (i.e., Are you happy with your child's educational program at school?). Finally, Thomas et al. asked parents to rate the *usefulness* of each service that they used and these researchers described the results as parent satisfaction.

Gaps and Limitations In the Reviewed Studies

Across the six research studies that were reviewed, all but one (Kohler, 1999) was conducted within the last 10 years with one study published in 2012 (Murphy & Ruble). The fact that the majority of these studies were published in recent years suggests that parent satisfaction with the school services that their children with ASD are receiving is a topic of interest in the field of special education. The limited number of studies addressing this topic also suggests that this is an understudied area that needs further research.

However, the six studies have overarching gaps and limitations that need to be addressed in future research. These include: (a) the wide age range of the participants; (b) limited information regarding school services, (c) inconsistency in the way satisfaction was measured, and (d) an excessive use of survey methodology. Each gap is discussed in the following sections.

The wide age range of the participants. Half of the reviewed studies (Bitterman et al., 2008; Kohler, 1999; Thomas et al., 2007) examined the satisfaction of parents of young children aged 3 to 9. However, the other three studies included a wide age range of participants. For example, Renty and Roeyers (2006) surveyed 157 parents of children with ASD aged 2.69 to 17.81, while Spann et al. (2003) included 45 parents of children and young people ages 4 to 18. Murphy and Ruble (2012) did not specify the age range of the 96 participating parents' children, but the average age was 10.33.

It is well known that child age influences parent satisfaction with the school services that their children receive (Bailey et al., 1999; Summers et al., 2005). Additionally, school services look different across early childhood, primary, and

secondary education programs. However, half of the reviewed studies did not analyze age-related differences across participants (Murphy & Ruble, 2012; Renty & Roeyers, 2006; Thomas et al., 2007). Since parent satisfaction tends to decrease as a child's age increases (Bailey et al.; Summer et al.), it is possible that higher satisfaction reported by parents of younger children was counterbalanced by lower satisfaction reported by parents of older children. Future research needs to focus on specific age ranges to better understand parent satisfaction.

Limited information regarding school services. The range of services addressed in the reviewed studies varied. Services included therapies, educational practices and interventions, services for families, and medical or extracurricular services. Each study had its own framework of the concept *service*, and included different numbers (ranging from 4 to 57 services) and types (i.e., educational, family, medical, and extracurricular services) of services that were evaluated in terms of parent satisfaction.

Although all six studies addressed educational services, the specific educational services of interest differed from study to study. For example, Bitterman et al. (2008) was the only study that included interpreter within the category of educational services. Similarly, only Kohler (1999) and Thomas et al. (2007) included PECS within the category of educational services. In addition, one study was conducted outside the US (Renty & Roeyers, 2006), and only one study was conducted exclusively in public schools (Bitterman et al.). Given the fact that the number of children with ASD receiving services through their school districts has increased drastically, future research should focus on the services that children with ASD receive from their neighborhood public schools.

Inconsistency in the way satisfaction was measured. Each of the reviewed studies used its own framework to measure parent satisfaction, and considerable variability was found in the survey items used to measure parent satisfaction with the services provided to their children with ASD. The items used to measure parent satisfaction included child-related aspects, staff-related aspects, family-related aspects, and service-related aspects. Each of the studies included different items on their survey instruments. In these survey instruments, terms such as needs (Bitterman et al., 2008; Kohler, 1999; Renty & Roeyers, 2006), concerns or problems (Kohler), benefits (Kohler), happiness (Murphy & Ruble, 2012), and usefulness (Thomas et al., 2007) were used frequently in place of satisfaction.

This inconsistency in how parent satisfaction was measured may be one reason for the variable levels of parent satisfaction found in the located studies. Given the lack of one theoretical framework around parent satisfaction, it is difficult to clearly understand parent satisfaction with the services that their children with ASD receive and to compare findings across research teams. Further research on the concept of parent satisfaction is warranted.

Excessive use of survey methodology. One of the most salient limitations of the previous studies is the excessive use of survey methodology. All six reviewed studies used survey methodology. All but one study (Kohler, 1999) asked parents to rate their satisfaction with their children's services using rating scales. Murphy and Ruble (2012) even measured parent satisfaction by relying on one survey question designated to measure overall satisfaction. The other 5 studies used a different numbers of survey items, thereby assessing parent satisfaction on different aspects of school services.

The use of survey methodology is helpful in understanding (a) whether parents are satisfied, (b) the degree to which parents of children with ASD are satisfied with their children's school services, and (c) if parents of children with ASD are more or less satisfied than parents of children with other disabilities or without disabilities. However, this mono-method approach, using rating scales might limit our understanding of parent satisfaction with school services. For example, two parents who both respond that they are satisfied with their child's teachers may have very different reasons regarding why they are satisfied, including factors such as teacher attitudes, teacher competence, and parent-school communication. In fact, satisfaction is a complex, subjective, and fluid concept (Friedman et al., 2006; Oliver, 2010). It is difficult to understand what factors parents consider when they report that they are satisfied or dissatisfied by rating their level of satisfaction on survey items. To gather a more complete picture of parent satisfaction with the school services with their children with ASD are receiving, researchers should listen carefully to parents' voices.

Mixed methods studies that use multiple inquiry methodologies are considered by many researchers as a way to gain a better understanding of complex phenomena (Greene, Benjamin, & Goodyear, 2001). A mixed methods approach enables researchers to understand what parents of children with ASD mean when they say they are satisfied with school services as well as the degree to which parents are satisfied. The current study addresses the gaps in the literature by examining parent satisfaction with the *school services* that their *young children* with ASD are receiving using a *mixed methods* approach.

Chapter 3

Methods

The purpose of this study was to investigate parent satisfaction with the school services that their young children with ASD receive. A mixed methods approach that included interview methodology along with a survey was used for the study. A mixed methods approach is not a choice between qualitative and quantitative approaches (Tashakkori & Teddlie, 2003); it respects and intentionally integrates multiple social inquiry traditions, and methodologies in order to grasp a fuller understanding of a phenomenon (Greene, 2007). An interview takes into account the multiple realities of a phenomenon (Seidman, 1991) and helps us understand the world from the parents' point of view. Interviews also reveal the meaning of parents' experiences (Kvale & Brinkmann, 2009). A survey contributes additional quantitative data and provides an opportunity to assess the validity of the study by triangulating the data. Thus this study was designed to gather a complete picture of parent satisfaction with the school services that their children with ASD receive. The following research questions were addressed:

1. What services do young children with ASD receive through their public school districts as reported by parents?
2. How do parents rate their satisfaction with the school services that their children with ASD receive?
3. What criteria do parents report that they use for judging satisfaction with services?
4. What recommendations do parents have for public schools in order to improve school services for their children with ASD?

Researcher Identity

In conducting mixed methods research, it is important to understand my own background as a researcher because it can potentially influence data collection and the interpretation of the data. Maxwell (2005) suggested explicitly stating potential researcher biases and examining them carefully throughout the research procedures. Therefore, my experiences relevant to this study and my assumptions are shared in the following section.

I am a certified special education teacher both in Korea and in the U.S. I taught children with various disabilities (ages 3 to 5) in a private early intervention center in Korea. At that time (approximately 10 years ago), Korean people had more negative attitudes toward disability than they have now, so I met many parents who cried during parent-child conferences and who said they were taking anti-depression medications due to difficulties associated with raising children with disabilities. After I came to the U.S., I studied special education in Boston, MA and I worked as an inclusion specialist in a public elementary school. Several primary grade children with ASD were on my caseload, and one of their mothers sued the school district so that her son would receive more services based on the principles of applied behavior analysis (ABA). It was only after she won the lawsuit and her son started receiving 20 hours of one-on-one ABA sessions per week that she said she reported being very satisfied with the school services.

My experiences with dissatisfied parents are a potential bias that might have influenced data collection and my interpretation of the data. Since I have met many parents who were sad, desperate, angry, and dissatisfied, it may influence the data analysis if I interpreted neutral parent responses as being negative or if I unknowingly

encouraged parents to speak negatively about the school services that their children receive.

Another potential bias may come from my strong beliefs about inclusive education. As a teacher, I often questioned the benefits of one-on-one, pull-out therapy. I believe children with disabilities can learn the same skills when they are taught in classrooms along with their typically developing peers. My bias regarding placement of children with disabilities may have influenced my interpretation of parents' ideas and feelings about inclusive services and segregated services.

As Maxwell (2005) suggested, I kept field notes throughout the research process to reflect on data collection and my interpretation related to these biases. The field notes were typed after each interview and while coding the interviews; I asked myself if I encouraged parents to respond in a certain way or if I paid too much attention to parent comments about being dissatisfied. This self-reflection helped me carefully consider my behavior and refrain from posing "leading" questions or comments (e.g., "You must be mad at them, right?"). It also helped me remain balanced when interpreting the data. There were two cases where this self-reflection resulted in changes in the data interpretation, one of which follows:

Interviewer: Is the aide communicating with other staff and giving you updates?

Mother: No but you know she is just there to help.

Interviewer: But she's there for him.

Mother: You are right. That's a good point. I will keep that in mind. I am going to ask if...that must be in her job description or anything. I believe she should be communicating with other staff.

In the above conversation, the mother did not seem to believe at first that the aide needed to promote communication among school staff or communicate with her, but after my prompting, confirming that this is part of the aide's job, she changed her mind. Because her response was made after my "leading" statement, I entered this excerpt as an example of my bias in the field notes. The mother's responses after the prompting were not used in the final data analysis.

Participants

Data were collected from 16 parents of children with ASD who were between the ages of 3 and 9 (mean age = 6.25 years). Information about the participants is presented in Table 6. Participants included 4 fathers and 12 mothers: their children included 14 boys and 2 girls with autism (7 children), Asperger's (2 children), or Pervasive Developmental Disorder-Not Otherwise Specified (PDD-NOS, 7 children).

The participants were recruited through family advocacy groups and family support networks, including Champaign-Urbana Autism Network, the Autism Society of McLean County, The Autism Program (TAP) at the University of Illinois, and Illinois Clearinghouse on Early Childhood and Parenting. A recruitment flyer (see Appendix A) with a brief description of the study's purpose, procedures, and the participant criteria was distributed through these centers. The flyers also were posted at a developmental pediatrician's clinic, the Speech-Language Pathology Clinic at the University of Illinois, and the public library. Finally, 16 kindergarten teachers from the local public schools whom the researcher has known from previous research projects were contacted to help recruit participants.

The criteria for selecting participants included: (a) a parent who had at least one child with ASD who qualified for special education and related services (i.e., had an IEP or IFSP), (b) the child was between the ages of 3 and 9, and (c) the child had received educational services in the public education system for at least six months prior to the start of the study. Participants provided written consent (see Appendix B) to be interviewed prior to the first interview occurring. Participation included consent to audiotape the interviews; therefore, if a participant did not want the conversations to be recorded, he or she was not recruited as a participant. All the participants consented to be audiotaped.

The recruitment flyer included the researcher's contact information so that parents who were interested in participating in the study could contact her. The participants were recruited over the course of two and a half months and recruitment was closed when the researcher recruited 16 parents and there was no participant contact for two weeks.

Once a parent who was interested in the study contacted the researcher, she emailed or called the parent with detailed information about the study (i.e., the information on the consent letter). If the parent was still interested in participating, the researcher scheduled an interview at a time and location of the parent's choosing. A small monetary payment of \$50 was promised to each participant in advance and was given at the completion of the study in appreciation of his or her time.

Measures

Family information survey. A Family Information Survey (Appendix C) was developed by the researcher and her advisor to collect family demographic information and information about the services that children with ASD received. The survey included

15 questions and took 10 to 20 minutes to complete. The survey included (a) demographic questions such as the child's and parent's age, gender, ethnicity, parent's marital status, level of education, employment status, family income, and siblings with disabilities; (b) questions about the child with ASD such as diagnosis and the level of communication, social, and behavior development; (c) questions about the type and amount of public and private education services that the child with ASD received; and (d) questions about parents' knowledge of ASD.

Some questions on the survey were designed to be followed by interview questions. For example, if a mother rated the communication development of her child with ASD as a little challenging on the survey, she was asked to explain what she meant by "a little challenging" during the interview. Therefore, the researcher made sure that each parent completed the family information survey before beginning the interview.

Interview development and pilot testing. An interview guide (Appendix D) was used to address the research questions. The interview guide was developed based on a review of the literature on parent satisfaction with school services for their children with ASD. The guide was refined after consulting with two professors in special education and two professionals who had extensive experience with parents of children with ASD.

The professors in special education noted that asking parents about different aspects of school services (e.g., type and amount of services, staff competence) before asking them to rate their satisfaction was likely to influence the parents' ratings of their satisfaction with school services. Therefore, the researcher decided to ask parents to rate their overall satisfaction with their children's services at the beginning of the interview as well as at the end of the interview to address this potential concern. One professional who

had had extensive experience with parents of children with ASD suggested adding specific questions regarding children's communication and behavioral characteristics and parents' perceived knowledge about ASD. Another professional suggested asking parents about family needs and concerns.

The interview guide included 12 questions, eight of which were open-ended, three that included a rating scale, and one that was both open- and closed-ended. All open-ended questions included probes or follow-up questions. Question 1 was about the child's diagnosis and communication, social, and behavioral development. Question 2 focused on parents' perceptions of their knowledge of ASD and their expectations for public school services. These two questions were follow-up questions to the family information survey in which parents were asked to explain what they meant by their satisfaction ratings. Questions 3 and 4 assessed parents' overall satisfaction with public school services and the rationale behind their responses. Questions 5 and 6 asked about each aspect of the school services that children with ASD receive (e.g., staff competence, child progress) and parent satisfaction with each aspect. Questions 7 and 8 addressed private services and parent satisfaction with them. Questions 9 and 10 asked parents to rate their overall satisfaction with public school services once again after reviewing specific aspects of school services in the previous questions. The final two questions provided parents with an opportunity to make suggestions for school services and to talk about anything that they wanted to add. Items on the interview guide were designed to address the four research questions. The relationship between the research questions and the interview guide is presented in Table 5.

The family information survey and the interview guide were piloted with two

mothers of children with ASD. One mother had a 6-year-old boy with PDD-NOS. She confirmed that the questions were well written and covered enough scope and depth to capture parent satisfaction with the school services that her child with ASD received. Another mother had an 8-year-old boy with Asperger's syndrome. She also confirmed that the questions were well written to assess parent satisfaction. She suggested that it would be easier for parents to follow along if there were fewer words on the parent version of the interview guide. Based on her feedback, the parent version of the interview guide was revised so that it showed only the key words for each question (see Appendix E). The interview guide was not shared with the participants before the interview because the researcher felt that reading the interview questions might influence parents' responses.

Follow-up questions were posed to participants, based on their responses to the original interview questions. The primary purpose of these questions was (a) to obtain clarity about ambiguous or contradictory responses or to request additional details about themes unique to each parent and (b) to ask participants to elaborate on their responses that resulted in themes that emanated from multiple parents. Follow-up questions were requested by email along with the interview transcript (during the first level member checks). Seven parents were sent up to two follow-up questions each and five of them provided elaborated responses. For example, the researcher posed the following question to one mother:

On page 11 [of the interview transcript], you said you were mostly satisfied with "family outcomes," but on page 8, you said the social worker provided information about programs around the town but there were no classes or anything. Since "family outcomes" in this study includes parent training and other

services for families, I am wondering if you still think you are mostly satisfied with “family outcomes.” Would you like to change your rating? Or if you want to keep it as it is, what would be the reason?”

The mother responded by email saying:

I guess there could be more help from the school. They have enough children every year diagnosed with autism. They could give us more help through the schools, i.e., classes. So I guess I would like to change my answer to somewhat satisfied. I know they mean well but there is room for improvement.

Data Collection

A flowchart showing the data collection and data analysis procedures is presented in Figure 1.

Family information survey. Parents completed the family information survey before beginning the interview. When the researcher first contacted parents, she gave them a choice of how to complete the survey. Parents could choose to have one 2- to 2.5-hour-meeting where they would sign the consent form, complete the survey, and then participate in the interview. Or, they could choose to have two separate meetings where at the first meeting they would sign the consent form and complete the survey, and at the second meeting they would participate in the interview. Fourteen of the 16 parents chose to have one meeting. For the two parents who chose to have two separate meetings, the second meeting was scheduled within 3 days after the first meeting. The surveys and face-to-face interviews took place between March and May 2013 at a mutually agreed upon time and place. They were conducted at the researcher’s office (6 parents), public library study rooms (4 parents), and participants’ houses (6 parents).

Face-to-face interview. The interviews were conducted by the researcher and lasted 1 hour and 9 minutes on average ranging from 31 minutes to 2 hours and 15 minutes. Each interview was audio recorded and field notes were recorded during each interview and immediately following each interview.

Field notes. The field notes were written by hand and then entered into the researcher's password-protected laptop computer. Field notes included the researcher's impressions and observations of the interview and ideas for coding. The field notes about potential categories identified during the interview and hypotheses about how the concepts may be related were expanded to create code memos (Bernard & Ryan, 2010). Field notes also included reflections on the researcher's potential biases and the timeline of the study (including the dates of every phone, online, and face-to-face contact with the participants, and the dates of interviews and member checks).

Transcription. The interviews were transcribed verbatim by the researcher and two graduate students who were not involved in the study. In order to assess the accuracy of the transcriptions, another graduate student majoring in Curriculum and Instruction listened to 4 of the 16, full-length interviews (25%), and compared the audiotapes to the transcripts to check for accuracy. The accuracy check was done on four randomly selected transcriptions. Discrepancies were found to be minimal (i.e., less than five words for every 1000 words). The transcripts averaged 19 pages (range = 9 to 26 pages) and 8222 words (range = 2377 to 13716 words). Discrepancies in the transcripts were corrected prior to data analysis.

First level member checks. In order to increase the credibility of the data and its analysis, a technique called *member checks* was applied. Member checks refer to having

interviewees review and confirm the accuracy of the data and the results. Member checks can include two levels (Brantlinger, Jimenez, Klingner, & Pugach, 2005): the first level addresses the accuracy of the transcription while the second level focuses on the accuracy of the interpretation.

After the interviews were transcribed verbatim, first-level member checks were conducted. Interview transcripts were sent back to each participant via email to make sure the transcripts were accurate records of what parents said. Participants were expected to reply in a week to suggest edits or approve the transcripts. If the researcher did not receive any feedback from a participant within a week, a reminder email or a voice or text message was sent. If the participant did not send feedback five days after the reminder, the participant's interview transcript was analyzed without the first level member check. Fourteen of the 16 parents (87.5%) replied with feedback. One of the non-responding parents told the researcher during the interview that she could not participate in the member checks because of a reading disability. All 14 parents who engaged in the member checks confirmed that the transcripts were accurate.

Second level member checks. Once the researcher finalized the categories from the interview responses, the categories and the definition for each category (see Table 7) were sent to the participants to determine whether the researchers' interpretations of parents' responses were a valid reflection of what the participants said and believed. The categories that were identified from each participant's interview were highlighted so that parents could see which categories reflected their ideas and which ones reflected other parents' ideas. The participants were asked to reply within a week (a) if they have any concerns with or suggestions for the interpretations or (b) if they agree with the

interpretations. If the researcher did not receive feedback from a participant within a week, a reminder email or voice or text message was sent. If the participant did not send feedback five days after the reminder, no additional contact was made.

Twelve parents participated in the second level member checks (75%). As previously noted, one of the participants who did not engage in the second level member checks had notified the researcher during the interview that she could not participate in the member checks because of a reading disability. Feedback from the 12 parents confirmed the validity of the researcher's interpretation of the parents' responses. Feedback included comments such as, "Sounds like a nice summary of what I said," and "I think all of your categories are an accurate reflection of my ideas, and I agree with all the ideas that came from other parents too!"

Confidentiality. To ensure confidentiality, participants' names were substituted with number IDs on the transcripts and field notes. Audio files, hard copies of transcripts and field notes, and consent letters were stored in a locked file cabinet in the author's office. Participant names or any other personal identifying information (e.g., name of the school or the teacher) were replaced by random alphabet letters. Only the researcher had access to the original data.

Data Analysis

A constant comparative method (Strauss & Corbin, 1998) was used to analyze qualitative interview data. Data analysis began concurrently with data collection and included the following process: (a) data reduction; (b) data display and comparison; and (c) conclusion and inferences (Greene, 2007; Miles & Huberman, 2010). QSR International's NVivo 10 qualitative data analysis software was used for coding and data

analysis. Transcripts were exported to NVivo and the researcher coded segments of the transcripts for different categories, once the research team reached consensus on categories. This coding changed as the researchers revisited and revised the existing categories. NVivo software calculated the number of segments coded for each category. This information was used for data analysis.

Data reduction. The researcher and a graduate student majoring in special education who has had experiences with qualitative research analysis independently read the first three interview transcripts several times. They conducted *open coding*, which included coding a small number of transcripts *line by line*, identifying potentially useful concepts, naming the concepts, and moving on to the next transcript and then repeating the same procedure (Strauss & Corbin, 1998).

A unit of analysis was identified by a topic switch. The researchers started coding when the parent began talking about a certain concept and stopped coding a unit of analysis when the parent switched topics. The codes, however, were not mutually exclusive. For example, in the following excerpt from a mother's interview, five different concepts were coded:

[Concept 1] I think my level of satisfaction is different with all of them. [Concept 2] The teacher that we have, the regular education teacher, she's mostly in the regular education classroom, she is kind of volatile, emotionally. she has had some personal stuff happen with her this year, and some medical stuff as well. [Concept 3] She doesn't communicate with me very well, and when I've tried to approach her, she doesn't respond to my emails. [Concept 4] And then there's his special education teacher is wonderful, love her. She's like, if we could just have

her every year, that would be perfect but that's obviously not going to happen. But she gives us a lot of feedback. She'll text me and tell me stuff, she has taken pictures of him before and texted me and told me good things about how he's doing. [Concept 5] She collects a lot of data, like a ton, and she knows a lot, she is an expert. (Participant 8)

In this example, the first coding that occurred was for the excerpt as a whole (i.e., [Concept 1]) to be coded as *inconsistency in satisfaction* because the mother reported that her level of satisfaction was different with different staff members. Second, Concept 2 was coded as Dissatisfaction with *staff attitudes*. Third, Concept 3 was coded as Dissatisfaction with *parent-school communication*. Fourth, Concept 4 was coded as Satisfaction with *parent-school communication*. Fifth, Concept 5 was coded as Satisfaction with *staff competence* (see Table 7 for definitions of each theme).

As the transcripts were coded, the researcher and second coder reviewed the concepts from the first three transcripts and considered how these concepts might be related or combined with one another. From these discussions, the initial categories emerged. The researchers also had a list of aspects of school services used to measure parent satisfaction from the literature. They used these aspects to create a category whenever appropriate. For example, when a mother said, "They [school staff] just don't listen. There should be more communication with the parents," the researchers created the category for *parent-school communication*, which is the exact wording from the list. Examples of these categories included *child progress*, *addressing child needs and concerns*, *teacher competence*, *family outcomes*, *parent-school communication*, and *amount of services* (see Table 3).

Once the researchers reached consensus on initial categories, they coded the remaining interviews one at a time. After each researcher independently coded each interview transcript, they met together to discuss the potential categories and to revise the existing categories as needed. Once the researchers came to an agreement on coding one interview, they moved on to the next interview. The categories were compared continually for similarities and differences to the ones that the researchers had already identified. For example, *parent involvement* was a category focusing on how parents' ideas and priorities were addressed in making educational decisions. However, as they coded more transcripts, the researchers found that the responses they had coded for *parent involvement* did not only focus on whether parents' ideas were addressed or not. Rather, comments also focused on parents advocating for their children and themselves and fighting for their voices to be heard. Thus, the category of *parent involvement* was revised as *parent voice*, which included parent advocacy.

Definitions for the new and the old categories were further revised as transcripts were coded (Bernard & Ryan, 2010); categories were combined and reduced to a smaller number of higher-level categories (Lincoln & Guba, 1985). For example, among the categories under Parent Recommendations, the coders originally had two separate categories: *individual accommodations* (e.g., visual schedules) and *classroom aide*. As the coding proceeded, however, a decision was made to combine these two categories and create a broader category called *individualized classroom support*.

Code memos were extended from the field notes and kept throughout the study. Code memos included the names of the different codes, the date when the coding was done, definitions of the codes, and the coders' thoughts about the codes (Kvale &

Brinkmann, 2009). An example showing linkages between texts, codes, and code memos is presented in Figure 2.

Data display, comparison, and conclusion. Once the categories were finalized and confirmed as “valid” by the participants (i.e., after the member checks), they were visually displayed to help the researcher draw conclusions across the data. The identified categories (qualitative data) along with parent responses to the survey (quantitative data) were analyzed together to assess similarities and differences and to provide depth to the responses. The primary purposes of using mixed methods in this study included *triangulation* and *complementarity* (Greene, Caracelli, & Graham, 1989). *Triangulation* refers to using one set of data with another set to assess corroboration of the validity of inferences (Green et al.). In other words, different methods are employed to assess the convergence of results. If various methods point to the same inferences, they strengthen the agreed upon position. *Complementarity* refers to seeking elaboration of the results from one method with the results from another method. Complementarity increases the meaningfulness and clarity of the obtained inferences by using methods that explore different facets of the same phenomenon.

Reliability. Category reliability was assessed by a graduate student majoring in special education. Following training, the coded segments were typed on Microsoft Word in random order and the definition of each category was given to the reliability coder. The coder sorted the segments within each subset into categories. Three subsets were given to the coder, including the categories under Satisfaction and Dissatisfaction together along with the Inconsistency in Satisfaction category, the categories under Private Services, and the categories under Recommendations. The reliability coder was

trained with 10% of the randomly selected data (within and across the participants) until agreement reached at least 80% for each of the 29 categories (eight categories each under Satisfaction and Dissatisfaction, five categories under Private Services, seven categories under Parent Recommendations, and the category of Inconsistency in Satisfaction).

The reliability coder then independently coded 25% of the randomly selected data. Reliability was calculated using the formula: $\text{agreements} / (\text{agreements} + \text{disagreements}) \times 100$. Overall reliability for 29 categories was 97.2%, ranging from 75% to 100%. Reliability for the eight categories under Satisfaction was 97.5% (80% to 100%) and reliability for the eight categories under Dissatisfaction was 94.4% (75% to 100%). Reliability for the category, Inconsistency in Satisfaction was 83.3%. Finally, reliability for the categories under Private Services and Parent Recommendations were 100%.

Chapter 4

Results

This chapter is organized according to the four major questions that guided this investigation: (a) what services do young children with ASD receive through their public school districts as reported by parents?, (b) how do parents rate their satisfaction with the school services that their children with ASD receive?, (c) what criteria do parents report that they use for judging satisfaction with services?, and (d) what recommendations do parents have for public schools in order to improve school services for their children with ASD?

Additional statistical and descriptive analyses examining the relationships between these findings and parent/child demographic information also are presented.

Services That Young Children with ASD Receive

Public school services. Parents were asked to list the names and the number of hours of services that their children have received in the past six months from public schools. During the interview, parents provided additional information including how frequently and by whom these services were delivered.

Speech therapy was the service that was mentioned by parents most often. Fourteen parents (87.5%) reported that their children received speech therapy at school. Occupational therapy (75%), social skills training (56.3%), one-on-one aide (25%), and individualized academic assistance (25%) followed in the order of frequency (see Table 8). The duration of therapy time varied from 20 minutes to 2 hours per week (46 minutes on average) for speech therapy; from 8 minutes to 2 hours per week (37 minutes on average) for occupational therapy; from 15 minutes to 1 hour per week (33 minutes on

average) for social skills training; and from 75 minutes to 5 hours per week (2 hours 34 minutes on average) for individualized academic assistance. Assistance from a one-on-one aide was provided throughout the school day for 25% of the children.

Although 15 of the 16 children received education in regular education classrooms for more than 80% of the school day, parents reported that most of these support services were delivered using a “pull-out” model. All children received speech therapy and individualized academic assistance in a small therapy room. Only one child received occupational therapy that was embedded in her classroom activity and two children received social skills training with typically developing peers within natural class routines (e.g., lunch buddies). Social skills training was delivered by various professionals including the special education teachers, inclusion specialists, and social workers. Individual academic assistance was provided by special education teachers or subject specialists (e.g., reading, writing, math specialists).

When asked if there were any other services that currently were not available in school but they would like their children to receive, 13 parents (including four parents whose children were receiving private ABA services) said they would like their children to receive ABA services, one parent wanted music therapy, and two parents said their children would not need any other services.

Private services. Although the primary focus of this study was to examine public school services for children with ASD, private services that these children received also were examined with the assumption that these two types of services are related. Eight parents (50%) reported that their children with ASD have received private services in the past six months. Of these eight children, more than half of them (5 children) received

speech therapy and occupational therapy, four children received ABA services, two children received social skills training, one child received music therapy, and one child received horseback riding therapy from private therapists (see Table 8). Interestingly, two children received speech therapy from two private therapists each, and one of these children received OT from two different therapists as well.

Therapy sessions ranged from 45 minutes to 2 hours per week (90 minutes on average) for speech therapy, from 25 minutes to 60 minutes per week (50 minutes on average) for occupational therapy, and from 2 to 3 hours per week (2 hours and 15 minutes on average) for ABA. All social skills training sessions were 60 minutes per week, while music therapy and horseback riding therapy each occurred 30 minutes per week. Most of these services were provided one-on-one or with a small number of other children with ASD. One child participated in a 3-hour ABA session every week that occurred in various places around the community including the child's home, grocery stores, post office, library, and playground.

Parents Ratings of Their Satisfaction with School Services

Satisfaction with public school services. During the interview, parents responded to the question, *How satisfied are you with the overall public school services that your child has received within the last six months?* This same question was asked twice: once at the beginning of the interview and then after reviewing different aspects of school services (e.g., teacher competence, parent-school communication). At both points in time, parents rated their satisfaction with public school services on a 6-point scale. The weighted average was 4.7 at the beginning of the interviews and decreased to 4.4 after reviewing different aspects of school services.

Fourteen parents (87.5%) said they were satisfied with school services at the beginning of the interview, and two parents reported that they were somewhat dissatisfied with public school services (see Table 9). Of the 14 satisfied parents, four parents stated they were somewhat satisfied (28.6%), seven parents said they were mostly satisfied (50%), and three parents reported they were completely satisfied (21.4%).

When the interviewer asked parents to rate their satisfaction with school services a second time after reviewing different aspects of school services, 11 parents said their ratings remained the same, but five parents (31%) rated their satisfaction one point lower. Among these five, four parents changed their rating from mostly satisfied to somewhat satisfied, and one father changed his rating from completely satisfied to mostly satisfied. These five parents were asked why they changed their ratings. They explained it was because they “forgot” to consider some features of their child’s services and now with more issues revealed, they found they were less satisfied. For example, one parent who changed her rating from mostly satisfied to somewhat satisfied said:

I almost want to say somewhat dissatisfied – now that we’ve sort of dissected it a little bit more... the discussion about the teacher, the classroom teacher, and the principal, and no services offered for my husband and me. I forgot about that. I see that now so I would like to change my rating. (Participant 8)

In the end, when she provided her final rating, Participant 8 stated that she still wanted to stay on the satisfied side because there were both “good things and bad things” with her son’s school services.

Satisfaction with each aspect of public school services. During the interviews, parents also were asked to rate their satisfaction with each aspect of the school services

that their children received on a 6-point scale, including aspects that were used to measure satisfaction in previous studies (e.g., staff competence, child progress). To help parents consider each aspect, a previous question (Interview Question 5, see Appendix D for questions) prompted parents to reflect on and provide detailed information about each aspect. For example, for *parent-school communication*, parents were asked, *Do school staff clearly communicate with you about the services they provide so that you can carry them over to home? In what way and how often do they communicate with you?*

Weighted averages of the responses revealed that parents were Mostly Satisfied with the length of time their children spent with typical peers (5.2) and the attitudes of the staff (5.1). Parents' satisfaction ratings with the rest of the school aspects were along the spectrum between Somewhat Satisfied (4) and Mostly Satisfied (5). The aspects that parents rated the lowest (lower than the weighted average of 4.5) included *amount of service*, *parent-school communication*, *staff competence* and *family outcomes* (See Table 9).

Percentage of satisfied parents also revealed similar results. All parents were satisfied with *child progress* (100%) and 15 parents (93.8%) were satisfied with and *parent involvement*. More than 80% of the parents were satisfied with *time with typical peers* (87.5%), *staff attitudes* (87.5%), *addressing child needs or concerns* (87.5%), *usefulness of service* (87.5%), *parent-school communication* (87.5%), *addressing family needs or concerns* (84.6%), *continuity of services* (81.3%), and *amount of service* (81.3%). The aspects for which fewer than 80% of the parents were satisfied included *staff competence* (75%), and *family outcomes* (67%) (See Table 9).

Relationships between overall satisfaction and family demographics.

Statistical analyses were conducted to examine the relationships between parents' overall satisfaction with school services and family demographics (see Appendix C for the survey). First, t-tests were conducted to see if there were significant differences in overall satisfaction between (a) different genders (parent's and child's gender), (b) parents who have another child with disabilities and parents who do not, and (c) parents whose children received private services and parents whose children did not receive private services. No significant differences between groups were found.

Second, a one-way ANOVA was conducted to see if there were significant differences in overall satisfaction between groups based on different (a) ethnicities (parent's and child's ethnicity), (b) marital status, (c) employment status, and (d) child's diagnosis. No significant relationships were found in these analyses.

Finally, Pearson Product Moment Correlation analyses were conducted to measure the degree of association between parents' overall satisfaction and (a) parent's level of education, (b) family income, (c) years living in this region, (d) child's communication development, (e) child's social development, (f) child's behavior, (g) percentage of time that the child spent in the regular education classroom, (h) number of public school services received, (i) parent's knowledge of ASD, and (j) parent's knowledge of teaching strategies for working with children with ASD.

A significant negative correlation was found between parent's satisfaction and their level of education (seven levels were presented: less than high school to doctoral degree and above). Thus, parents who had more advanced degrees tended to rate their overall satisfaction lower, $r(14) = -.50, p < .05$. A significant negative correlation also

was found between parent's satisfaction and the behavior of their child with ASD, rated on a 4-point scale (not challenging to very challenging). Therefore, parents who rated their child's behavior as more challenging reported lower satisfaction with school services, $r(14) = -.53, p < .05$.

Relationships between overall satisfaction and satisfaction with each aspect of school services. Pearson Product Moment Correlation measured the relationships between parents' overall satisfaction with school services and their satisfaction with each of the 12 aspects of school services. Among the 12 aspects of school services presented, statistically significant correlations were found between overall satisfaction and six different aspects of school services – *amount of service, addressing child need or concerns, staff competence, staff attitudes, parent-school communication, and child progress*. Parents who reported higher satisfaction with the overall school services were more satisfied with the amount of services that their children received, the school services addressing their children's needs or concerns, the competence and attitudes of school staff, and the quality and quantity of communication between school and home (See Table 10).

Satisfaction with the overall private services. All eight parents who reported that their children with ASD received private services were satisfied with the services (See Table 9). The weighted average of parents' satisfaction with private services was 4.8. One parent said she was completely satisfied (12.5%), four parents said they were mostly satisfied (50%), and three parents said they were somewhat satisfied with the private services that their children with ASD have received (37.5%).

Criteria That Parents Used to Judge Satisfaction with Services

Public school services. Right after parents rated their satisfaction with public school services, they were asked, *To what are you responding when you say you are (completely satisfied/ mostly satisfied/ somewhat satisfied/ somewhat dissatisfied/ mostly dissatisfied/ completely dissatisfied)?* A total of 172 responses were coded for this question. Interestingly, although the majority of the parents (14 parents) reported being “satisfied” with the overall school services that their children with ASD received, their opinions about the criteria they used to judge satisfaction tended to be more negative than positive. Of the 172 responses, 60% (104 responses) were negative responses where parents talked about something with which they were not satisfied (e.g., “I don’t find that he’s making the progress,” “How much can you really get done in 30 minutes a week? That’s hardly any time. If you broke it up or...It’s just pathetic.”), whereas 40% (68 responses) were positive responses where parents talked about something with which they were satisfied (e.g., “She [classroom teacher] really care about helping the kids that she is serving.”) (see Table 11).

Satisfaction. Sixty-eight responses were related to parent satisfaction and coded separately from the responses related to parent dissatisfaction; eight categories were identified from these 68 responses. The category that appeared most frequently as a positive criterion for judging satisfaction was *child progress* (22%), followed by *staff competence* (19%) and *parent-school communication* (19%), *parent voice* (15%), *collaboration among staff* (10%), *staff attitudes* (6%), *addressing child needs or concerns* (4%) and *better than nothing* (4%) (see Table 7 for definitions of each category and Table 11 for frequencies and percentages). These rationales were consistent with the

aspects of school services used to measure parent satisfaction in the literature except *better than nothing*. It is important to remember that even the categories that comprised a very small portion of the total responses (e.g., *addressing child needs*, 3 out of 68 responses), these were made by three different parents, which encompassed almost 20% of the participants. The definitions and illustrative quotes for each category follow.

Child progress. Parents said they were satisfied because their child was making progress after receiving school services. The progress that children made included development in behavior, social, communication, academic, and adaptive skills. For example, the mother of a 7-year-old girl with PDD-NOS said, “My daughter has come a long way. She is talking better. She is communicating. Her social skills are getting better. Before she did not even try to communicate, now she is communicating” (Participant 15).

Staff competence. Parents talked about school staff, including the child’s one-on-one aide, understanding children, being equipped with effective strategies, and knowing how to teach them. One mother said, “I am mostly satisfied with the school services because the people there really know how to handle C [child’s name] and what to do” (Participant 6). Parents whose child had a one-on-one aide talked specifically about the competence of their child’s aide. For example, the mother of a 9-year-old boy with ASD said, “Again, it depends on the aide. The aide is one-on-one, so they know the best. They have the knowledge, the skills, they have everything” (Participant 3).

Parent-school communication. Parents talked about school staff communicating with them frequently about how the child was doing and what they were working on. This helped the parent implement what the child was doing in the home.

Since G [child's name] has the iPad and it has a camera in it, they are taking videos now. And that is a great help because then we're able to actually see what they're doing with him at school. Then we can take it and bring this home. For instance they were doing "eat" and he does "eat" like this and then "drink" [parent shows an ASL sign for "eat" and "drink"]. But with him going up and always having his hand cupped, we wouldn't know if he was wanting to do eat or drink. Since they showed us what they're doing with the iPad, why don't we do two hands with the drink. So it's really working out great with the iPad and being able to video it and bring it home for us to see. (Participant 3)

Parent voice. Parents talked about school staff listening to parents' ideas and suggestions in making educational decisions and in delivering services. One father said, "Certainly, it seems like they [school staff] have been collaborative with us on determining what he [child with ASD] might need and putting things into place" (Participant 6). Listening to parent voices appeared to promote parent-school partnerships where parents and professionals collaborated with one another to follow through with the IEPs as planned.

I think we are mostly satisfied. A lot of it is because we're very aggressive. When we get his plan we make sure to follow through with it. We just don't create a plan and let it sit. We're mostly satisfied because we're partners with them [school staff]. We don't try to make them mad or anything. The teachers are trying to work closely and I think they have the same agreement with us that they want to work with us... We've developed a partnership. (Participant 9)

Collaboration among staff. Parents talked about school staff communicating with one another so that everyone knew what the goals were for the child with ASD, consulted with one another, and worked closely to achieve the same goals.

[I am satisfied with] teacher collaboration. The school is set up... even all the way to the bus drivers, they really know which children are the most ... if you want to say at risk or of how to deal with it. They knew what to do and how to get her [child with ASD] off the bus. It went from all the way to the bus drivers, to the custodial staff, and to the teachers. (Participant 7)

Staff attitudes. Parents also talked about staff's care, enthusiasm, and how they did the best for their children with ASD.

I think that his teachers really really really care for him. I do. I think they really like him and they want the best for him and as much as they can they do try to work with him. So I feel like as best as they can they are helping him and I do feel safe dropping him off at school and knowing that he is going to people that really do care for him. It's not like 'Oh this is their job, they are just doing their job.'
(Participant 4)

Addressing child needs. Parents talked about school services addressing children's needs adequately. For example one father stated, "Yeah I mean they address everything that we need as it relates to concerns [about the child needs]. Never had one concern unaddressed in our entire time at school" (Participant 9).

Better than nothing. Parents said that they "had to be" satisfied because they had nothing to compare it against, school staff were doing at least something for their child, and they could not afford private services. For example, the mother of a 9-year-old boy

with autism said, “Well... I am satisfied because of the fact that we’re doing at least something, you know. We are trying to do something to make this little boy’s life better” (Participant 3). Another parent said, “I don’t have anything to compare against, so honestly I have to feel completely satisfied” (Participant 6).

Dissatisfaction. One hundred and four responses related to parent dissatisfaction were coded separately from the responses related to parent satisfaction, and eight categories were identified from these data. The category that appeared most frequently as a criterion for judging dissatisfaction was *parent-school communication* (26%), followed by *staff competence* (18%), *amount of services* (14%), *staff attitudes* and *addressing child needs* (12%) each, *parent voice* (9%), *something better out there* (6%), and *child progress* (4%) (see Table 7 for definitions of each category and Table 11 for frequencies and percentages).

Parent-school communication. Parents complained about school staff infrequently communicating with them about how their children were doing and what they were working on.

Sometimes I wonder how much they [school staff] are communicating with me. We had them fill out some information to see a doctor who specializes in autism and disabilities of some sort. And they put in the information that they filled out for this doctor and they put stuff that they had never told me. And I felt like well why didn’t you tell me this? That kind of stuff I felt like the communication like maybe they were uncomfortable telling me or maybe felt like it wasn’t necessary to tell me but I felt like it was necessary to tell me. So, I was a little upset with that. (Participant 4)

Staff competence. Parents complained that school staff were not properly trained with children with ASD or other disabilities, did not know how to deal with children with ASD, and did not know about effective strategies for children with ASD. For instance, Participant 3 reported:

It would be nice if they [school staff] know what they're doing. It's trial and error for them as well because each child is so different. They just have to keep trying different things – let's try this or let's try that, let's see if this will work. So everything, if he's not making progress at something, they'll stop doing this and let's try maybe this. Just like with the apps for the iPad, they tried several different apps and it just wasn't... so now we're doing the sign language, trying that

Another mother (Participant 2) who rated the behavior of her boy with ASD as very challenging also said:

His perception is not reality. The teacher doesn't get that. All she sees is him hitting somebody but she doesn't understand that, something, there was a precipitating event. Somebody bumped into him. Although it was an accident, in his mind, it's not. She doesn't get that. What happens is things like that, he gets written up and then her techniques for dealing with the behavior is holding him in line, at the front of the line with her instead of letting him be in line with everybody else. Like he's a bad child

Amount of service. Parents talked about the school district providing only limited hours of services for their children with ASD, as highlighted in this quote:

Another aspect of it where I was saying we're somewhat satisfied is the amount of time that we're getting. I wish he would have more time with the therapist. I understand the situation is what it is right now but I don't think it's enough for the challenges J [child's name] has. (Participant 1)

Parents also complained that school districts were not hiring enough professionals (e.g., speech therapists, ABA specialists) and paraprofessionals (e.g., one-on-one aides) to provide services for children with ASD.

The main reason I am somewhat dissatisfied is because they did not have adequate staff at Head Start to assist her [child with ASD] with her daily routine. She wasn't the only one there that could have used that extra hours of help. Any student there that is just like J [child's name] would be the same way, needing that extra hours of help. Head Start does not have the right staff for that. (Participant 16)

Staff attitudes. Parents complained about school staff not caring, lacking enthusiasm, and not doing the best for their children with ASD. One mother said, "She [classroom teacher] has told me in the past, 'I've got X amount of students in the classroom and I can't focus directly on just B. Can you believe that?'" (Participant 8)

Addressing child needs. Parents also mentioned that school services did not address their child's needs, or addressed only some of their child's needs (e.g., they addressed the child's speech issues but not his adaptive skills).

His speech goals are social language, and up until midway through the year, she [speech therapist] was with him one on one, he has a problem with socializing

with other kids, initiating and maintaining conversations. And now she is working on articulation... I'm like you are not meeting my son's needs. (Participant 10)

Parent voice. When parents spoke of their frustration, they talked about school staff not listening to parents' ideas and suggestions in making educational decisions and in delivering services.

I think they ought to listen more to the parents. And if the parents are telling them something they need to comply. Like last year was a bad year for G [child's name]. When I asked, "Can we not try a different aide?" They said, "No it's too far into the year" and he was stuck with the aide and it was not good. (Participant 3)

Parents often had to advocate for their child and themselves and fight for their voices to be heard. For example, the mother of a 6-year-old boy with Asperger's syndrome said, "I've had to advocate for my child a lot and I've been in to see the principal a lot. I have tried to talk to his teacher a lot" (Participant 2).

Something better out there. Additionally, parents said they were less satisfied because there might be "the latest and greatest" services, programs, techniques, or schools somewhere that they do not know about.

They [school staff] might be missing the latest and greatest learning tools that I don't know about. So there's always room for learning new things. I can't say I know the complete inner working of how they operate as a team. So I just don't know. (Participant 9)

Child progress. Parents talked about their dissatisfaction due to their children not making adequate progress. The mother of a 4-year-old boy with ASD stated, "We're

seeing stuff come home from the school where he is drawing straight lines... I feel like we're seeing progress on that" (Participant 13).

Inconsistency in satisfaction. During data analysis, *inconsistency in satisfaction* emerged as an overarching category. All parents reported at least once that they were more satisfied with some services or staff but less satisfied or dissatisfied with other services or staff. For example, the mother of an 8-year-old boy with PDD-NOS said:

I guess I would say somewhat satisfied. I think his classroom teacher... She does well with him. She certainly cares about C [child's name]. As well as his learning disabilities teacher [special education teacher],⁴ as I said, I can't say enough about her. She's wonderful. She knows everything. But others... I have no idea what they are doing whenever they are with C. So I would just say overall I am somewhat satisfied. (Participant 12)

This response was coded for several different categories including *staff attitudes*, *staff competence*, and *parent-school communication*, but this response as a whole was coded as *inconsistency in satisfaction*.

Case-by-category matrix. The categories identified for parent satisfaction and dissatisfaction were grouped using a case-by-category matrix (Bernard & Ryan, 2010) (see Figure 3). An analysis of items within the case-by-category matrix showed that parents talked more about what made them dissatisfied than satisfied. The contrast was more drastic with the parents who were less satisfied (i.e., somewhat satisfied and somewhat dissatisfied) than with those who were more satisfied (i.e., mostly satisfied and completely satisfied). Parents who were less satisfied had only a few reasons that made them satisfied and many more reasons that cause them to be dissatisfied with school

services (6 vs. 30 categories). However, parents who were more satisfied shared an equivalent number of reasons regarding why they were satisfied and dissatisfied (43 vs. 40 categories). In fact, of the 10 parents who were more satisfied, four parents provided more reasons for being dissatisfied than satisfied and two parents provided an equal number of reasons for being satisfied and dissatisfied.

An analysis of the case-by-category matrix highlights the category, *inconsistency in satisfaction*. The shaded cells in Figure 3 reflect the rationales that parents provided for being satisfied and dissatisfied with school services. For example, Participant 7 said she was satisfied with the communication between the resource teacher and herself.

There's lots [of episodes that are related to my satisfaction]. I have to think of a good one. I would say that calls that I get throughout the day about how his [child with ASD's] day was, whether he's having a bad day

Later she also said, she was not satisfied with the communication between the classroom teacher and herself, "She sends notes home everyday, but it means nothing. It says, 'we drew flowers today,' you know. I am like that's not what I want to know." Of the 119 cells in the case-by-category matrix, 32 cells (27%) are shaded indicating that parents expressed inconsistency in satisfaction with that particular aspect of school services.

Private services. Immediately after parents rated their satisfaction with private services, they were asked, *To what are you responding when you say you are (completely satisfied/ mostly satisfied/ somewhat satisfied/ somewhat dissatisfied/ mostly dissatisfied/ completely dissatisfied)?* A total of 33 responses that reflected satisfaction with services, were coded and five categories were identified. The category that appeared most

frequently as a criterion for judging satisfaction with private services was *amount of services* (30%), followed by *ABA* (27%), *staff competence* (18%), *parent-provider communication* (12%), and *child progress* (12%) (see Table 12). Each category is discussed in the following sections.

Amount of service. Parents talked about private services supplementing public school services in terms of the amount and frequency of services. One father said, “The other reason that we kind of let it go [not asking for more hours of services from the school district] is because we have a private OT also working with J [child’s name] so we have the input as well” (Participant 1).

Another parent of a 4-year-old boy with PDD-NOS said:

I am satisfied with it [private speech therapy] because that adds on to those 30 minutes [that the public school provides]. I think he needs more than 30 minutes. If I can get more hours from his school, I would never go outside of the school.
(Participant 4)

ABA. Parents talked about ABA services helping their children make progress. Parents also supported the efficacy of ABA and asked school districts to provide ABA services. One mother said, “ABA put him not only on a behavioral track but an academic track, so they’re really building foundations and... I say like Swiss cheese... they [ABA services] are putting those blocks into those holes that he was missing” (Participant 5). Another mother of a 3-year-old girl talked about ABA service providers were equipped with autism-specific knowledge and therefore were able to help make progress.

I have been satisfied with his progress but it’s mostly driven by what we’re doing, his private ABA. She [ABA service provider] has been working with a ton of

children with autism and so she just knows how to deal with them. (Participant 16)

Staff competence. Parents talked about private service providers understanding children with ASD and knowing how to teach them. For example, the mother of a 9-year-old boy with autism believed private providers were more knowledgeable than public school providers. “These [private service providers] are professionals that do this day in and day out, and they see a lot of kids on the spectrum. Whereas I don’t think the school has that knowledge and skill set” (Participant 3).

Parents also talked about private providers “leading and guiding” public school staff by sharing the techniques they use for children with ASD.

They’ve put together different cards, like a script... A lot of it [effective techniques] has been driven by his [private] behavioral therapist. Had she not been there to help them [public school staff], I don’t know that they would have come up with these types of techniques to use with him. (Participant 2)

Parent-provider communication. Parents talked about private service providers communicating with them regularly and frequently about how their child was doing and what they were working on. For example, Participant 1 stated:

We’re occasionally getting emails from her [private speech therapist] just telling about what happened in the session. What J [child’s name] did in the session... She has been pretty good about communicating with us

Child progress. Parents also talked about their children making progress after receiving private services.

I have to tell you, most of the growth that we've seen I think was driven by a lot of the private assistance that we've gone with. I think a lot of his growth has been because of the behavioral therapy and speech therapy that they've been providing.

(Participant 10)

Recommendations That Parents Offered for Public Schools

At the end of the interview, parents were asked, *What advice would you offer to public schools to enhance parent satisfaction with school services for parents and their children with ASD?* Fifty-one responses were coded from parents' answers to this question. Seven categories emerged including *parent-school communication* (29.4%), *staff training* (18%), *family and peer training* (18%), *individualized classroom support* (14%), *staff attitudes* (10%), *amount of service* (6%) and *ABA* (6%) (see Table 13).

Parent-school communication. Parents suggested that school staff communicate more frequently about how their children were doing and what they were working on. Participant 1 suggested:

I would say probably work a little harder on communication. I think communication is often something that is lacking. So you are maybe doing a great job but if you are not telling me about it then I don't know

As one way to increase communication, parents suggested scheduling regular meetings. For example, one parent said, "Updates on IEPs or even parent-teacher conferences for kids who have special needs should be a lot more regular" (Participant 13). Several parents recommended that school staff use technology including emails, text messages, sending pictures, and video clips to make communication easier.

Say you have school Monday through Friday, Thursday night, the teacher takes the notebook, Friday afternoon they send it home. That gives the parent the whole weekend to write a note back to the teacher. I personally think that's a great idea... Or emails! You get a lot faster response with an email than you do with a notebook. (Participant 11)

Parents emphasized that communication should focus on what parents want to know. One mother said, "Yeah, I mean, they communicate with me, it wasn't on the level that it needed to be. So I think they maybe need to listen to what parents want to know" (Participant 14).

Staff training. Parents suggested that all school staff including teachers, therapists, administrative staff, and custodial staff should receive training to understand and interact with children with ASD and other disabilities.

I think the biggest thing is training for all parties that would have any interaction with children with ASD, and knowing how to ... just making them aware of their social ... I think that just if they knew better how children [with ASD] respond, and how just because they say things or don't respond how you expect or how another child would respond, doesn't mean either that they're being rude or that they're not listening to you ... just that they're different. I think that's huge. I think it's just the training for all of those staff members. That's the biggest thing. (Participant 12)

Family and peer training. Parents also suggested that school districts provide training for parents to help them better understand ASD and learn effective strategies for teaching new skills to, and interacting with children with ASD.

Maybe more services for the families. I'm thinking... You could have like a special class or something where they [parents] watch videos and answer questions and stuff like that. That way they can get a better understanding.

(Participant 7)

Parents thought trainings were needed for siblings and typically developing peers as well, so that they develop positive attitudes toward children with ASD.

Maybe you mentioned like the services for the students that have to, that are integrated with the ASD kids, to understand more to where there would be less name calling and things like that. I know you can't avoid that with kids that's just going to happen, even with two kids that don't have disabilities, but—so they can see their perspective a little bit better. If a child could understand what my child feels, maybe they would be less apt to make fun of him. (Participant 8)

Individualized classroom support. Parents suggested that their children with ASD receive services that are tailored to his or her needs. Examples included individualized picture schedules and systematic reinforcement systems. But the majority of responses coded in this category were about children having a one-on-one aide. For example, the mother of a 9-year-old boy with autism said, “They need to try to be more one-on-one with these children [children with ASD]. He learns the best with his aide. She knows him the best” (Participant 3).

Staff attitudes. Parents also suggested that school staff be more caring, enthusiastic, and do their best for students.

We feel that school districts, the impression we get is that they are working to make sure that they don't provide any more than they have to. That's the

impression we get. We understand that there's budget limitations and staff limitations and all those things but they would be well-served to at least work harder at trying to give parents the impression that they are doing everything they can for a child. We feel like sometimes they have not done a good job with that. (Participant 1)

Amount of services. Parents also suggested that school districts provide more hours of services than are currently available. For example, the mother of a 4-year-old boy with ASD said, "Especially that it's half a day school too, I feel like that 30 minutes interferes with his class outside of the therapy. So maybe a little extra time would be great" (Participant 4). Another mother of a boy with ASD said, "What can you do with 30 minutes a week? It literally means nothing" (Participant 12).

ABA. Finally, parents recommended that school districts make ABA services available. These suggestions were made exclusively by the parents whose children were receiving ABA services.

Um...And ABA would be... It's a very well known method of working with autistic children. You would think maybe it would be something that a parent wouldn't even have to bring up. The school should bring it up and talk about why or why not it might be appropriate for the child. I mean that's another one [of my recommendations] for sure. (Participant 5)

Overall, the majority of participants in this study were satisfied with the overall school services that their children with ASD received. Parents who had higher education levels and who had children with more challenging behaviors tended to rate their satisfaction with school services lower. Parents used different rationales to judge

satisfaction, including *parent-school communication*, *staff competence*, *staff attitudes*, *amount of services*, *addressing child needs or concerns* and *child progress*. Parents' satisfaction with each of these six aspects of school services was correlated with their overall satisfaction with school services. Parents also noted these same reasons as impacting their satisfaction with private services. Finally, parents offered numerous recommendations for public schools, mostly focusing on increasing parent-school communication, providing training to staff and family members, offering individualized classroom support, improving staff attitudes, increasing the amount of services available, and making ABA services available in school.

Chapter 5

Discussion

The purpose of this study was to investigate parent satisfaction with the school services that their young children with ASD receive. This study extends the research on parent satisfaction by using both qualitative and quantitative measures to understand parent satisfaction. The use of mixed methods highlighted not only the level of parent satisfaction but also parents' meaning of satisfaction.

School Services for Children with ASD

Children with ASD whose parents participated in this study received 3 services on average (range = 1 to 5 services) from public schools. This number is low compared to the literature about public school services for children with ASD in a nationally representative sample (Bitterman et al., 2008) where the authors reported that children with ASD received an average of 5.4 services. The difference may be the result of the methods used to collect data. Bitterman et al. provided parents with a list of services to choose from whereas in the current study parents were asked to list the services that their children received. Bitterman et al. included educational practices and interventions such as AAC and PECS on their list, yet no parents in the current study listed these as stand-alone services even though it was obvious from the interviews that several of the children used AAC or PECS. Thus our data may represent a conservative estimate of the services provided to young children with ASD.

Findings from the current study are consistent with previous studies in terms of the mostly frequently provided school services for children with ASD. In previous studies (Bitterman et al., 2008; Kohler, 1999; Murphy & Ruble, 2012; Spann et al., 2003;

Thomas et al., 2007), speech therapy was the service used most frequently, followed by occupational therapy. The same results were found in the current study.

Parent Satisfaction Ratings and Social Validity

The majority of the parent participants (14 parents) reported that they were satisfied with the overall school services (i.e., weighted average of 4.7). This result is consistent with the results of several previous studies (Bitterman et al, 2008; Thomas et al., 2007) where the authors found that the majority of parents were satisfied with school services. However, when asked to provide a rationale for judging satisfaction with school services, the mismatch between satisfaction ratings and the rationales used to judge satisfaction were apparent. For example, Participant 13 rated *staff attitudes* as something that she was completely satisfied with, but she also said she was not satisfied with school services because of the unenthusiastic attitudes of school staff. Similarly, Participant 8 said she was mostly satisfied with *staff competence*, but she described classroom teacher's limited knowledge in ASD-specific services as something that resulted in her being dissatisfied with school services. Similar examples were observed for most of the participants.

In addition to the mismatch between satisfaction ratings and the categories that emerged from interview data, *inconsistency in satisfaction* also revealed that parents were not uniformly satisfied or dissatisfied. When parents reported that they were somewhat satisfied overall, it appeared that they could be satisfied with one aspect of school services but dissatisfied with another aspect. In almost 30% of the cases, parents used the same criteria as a rationale for being both satisfied and dissatisfied (see the case-by-category matrix, Figure 3). Similar to findings in this study, inconsistent feedback from

parents also emerged from Bitterman et al. (2008). Bitterman et al. reported that parents were not uniformly satisfied or dissatisfied with school services. They were more satisfied with the program, teachers, and services but less satisfied with the amount and availability of services and their children's time spent with typically developing peers.

Other interesting categories included *better than nothing* and *something better out there*. Almost 20% of the parents said they were satisfied because they were at least doing something for their children and they had nothing with which to compare these services. Similarly, more than 30% of parent participants said they were not satisfied because they believed that there must be something better out there. These two categories have not been used before in the literature to measure parent satisfaction.

What these results suggest is that the number (i.e., percentage of parents who report being satisfied) itself might not be an accurate reflection of parents' satisfaction, and preselected items for measuring satisfaction might not capture all the reasons that parents use to judge satisfaction with school services. However, within an education context the social validity of a program has often been assessed by using consumer satisfaction questionnaires (Foster & Mash, 1999). In fact, previous studies on parent satisfaction with school services for their children with ASD exclusively used survey methodology and provided parents with a list of aspects to which they responded by rating each item.

Results from this study revealed that parents cited numerous reasons for judging satisfaction, and that parents were not uniformly satisfied even with any aspect of school services. These results question using parent satisfaction surveys alone to measure social validity of programs for children with ASD. Social validity should not be considered a

single construct to be scored dichotomously – for instance, a service has social validity or not (Foster & Mash). Rather, it is a multidimensional, complex construct that should be evaluated at various levels of analysis (Fawcett, 1991). For example, parents should be asked about their satisfaction with different aspects of school services as well as their satisfaction with school services as a whole. However, previous studies used a limited number of survey items to measure parent satisfaction. This oversimplification should be avoided by also using qualitative measures aimed at examining the meaning of satisfaction. A combination of qualitative and quantitative methodologies will help researchers better understand the meaning behind parents' satisfaction with school services, and thus improve the acceptability or importance of the goals, procedures, and outcomes of school services.

Overall Satisfaction, Parent Education, and Child Behavior

Pearson Product Moment Correlation analysis revealed a negative relationship between parent satisfaction with the overall school services and a parent's level of education. Analysis of the interview data also supported these results. The one parent who had the highest educational level (a master's degree) and another parent with a 2-year college degree rated their satisfaction the lowest (i.e., somewhat dissatisfied) compared to all other participants.

Previous studies have shown that parents who have more advanced degrees tend to be more involved in school (Kohl, Lengua, & McMahon, 2000). It seemed that parent participants in the current study who had more advanced degrees had knowledge and skills to navigate various resources to get information about existing therapies and strategies for their children with ASD. And they tended to be actively involved in their

children's in school and could ask for the therapies and strategies that they desired. For example, the mother with a master's degree said:

Everything that I'm aware of, we're trying to get it [therapies for children with ASD]. We [participant and her husband] understand the terminologies, we are educated. We're lucky. Not every family is fortunate and I feel badly for them, because the system does not work for them. It's not working for me and I'm all over it. What's it doing for the families that are struggling? They [school districts] should be open and accepting of new strategies. (Participant 2)

Although parent satisfaction and efficacy of a service are important in developing and maintaining a socially valid educational program, there is no guarantee that acceptable and viable services are always effective. In fact, services garnering high consumer satisfaction sometimes lack empirical validity. For example, Green et al. (2006) identified treatments used by parents of children with autism through an internet survey. They found that parents were using many treatments that have little empirical evidence. In the study of Bowker, D'Angelo, Hicks, and Wells (2011), medications, alternative diets, and physiological treatments are among the top five treatments used by families, and yet these were also the top three treatments most commonly discontinued.

Families are influenced to try a variety of controversial treatments and later discontinue the treatments (Bowker et al., 2011). This results in time wasted on ineffective treatments that may have been better spent on treatments known to be effective. Given that this is detrimental, especially at the early childhood age, and influences parent satisfaction negatively, there is a dire need to educate parents of children with ASD. Understanding the importance of evidence-based practices and

knowing what evidence-based practices are available will empower parents to make informed decisions in selecting the services for their children.

Parent satisfaction with the overall school services also was negatively related to children's behavior. In other words, parents who rated their child's behavior as more challenging were less satisfied with school services. The result may reflect the stress that parents have in dealing with children with ASD. Many researchers have noted that parental report of children's challenging behaviors is a significant predictor of stress in parents of children with ASD (Davids & Carter, 2008; Lecavalier, Leone, & Wiltz, 2005). In mediating parental stress, teachers can play a critical role by developing and implementing effective behavior management interventions. However, many teachers report that they lack the necessary skills and training to effectively address challenging behaviors (Baker & Zigmond, 1990; Kilgore & Griffin, 1998). Therefore, there is a need for teacher and parent training of evidence-based interventions that address challenging behaviors of young children. One of the well-know interventions that has been supported by a growing body of evidence is function-based interventions (Dunlap & Fox, 2011). Based on a functional conceptualization of challenging behavior and functional assessments and interventions, function-based interventions have effectively resolved the challenging behaviors of children with ASD in early education settings and home environments (Dunlap & Fox).

As the function-based approach evolved to Positive Behavior Support (PBS), more comprehensive tiered models that address children's challenging behaviors have been developed. For example, the Teaching Pyramid Model (Hemmeter, Ostrosky, & Fox, 2006) addresses challenging behaviors of young children by promoting social-

emotional development and emphasizing the prevention of challenging behaviors. This tiered model has been effectively used for all children in inclusive early education programs (Hemmeter, Snyder, Fox, & Algina, 2011). School districts should adopt program-wide frameworks, such as the Teaching Pyramid Model to address challenging behaviors of young children with ASD, promote their social-emotional development, and increase parent satisfaction with school services.

Consistency in Parents Responses about Services for Their Children with ASD

It was interesting that the different data collection methods revealed similar results. The Pearson Product Moment Correlation found a significant relationship between parents' overall satisfaction and *parent-school communication, staff competence, staff attitudes, amount of services, addressing child needs or concerns* and *child progress*. The categories for satisfaction included all of these aspects except *amount of service*. The categories for dissatisfaction included all six of these aspects. The categories that emerged from parents' comments about criteria used to judge satisfaction with private services included all of these aspects except *addressing child needs* (see Figure 4 and Tables 11 and 12). Finally, the recommendations offered by parents for public schools to enhance parent satisfaction were closely related with these six aspects (see Figure 4 and Table 13).

These findings are consistent with aspects of school services used to measure parent satisfaction in the literature (Bitterman et al., 2008; Kohler, 1999; Murphy & Ruble, 2012; Renty & Roeyers, 2006; Spann et al., 2003; Thomas et al., 2007). Additionally, since different methods resulted in the same inferences, triangulation

(Greene et al., 1989) was achieved and therefore we can confidently state that these six aspects are related to parents' satisfaction with overall services.

Limitations

There are several limitations in this study that need to be considered in interpreting the results of the study. First, the study included 16 parents of children with ASD from six small mid-west towns. Because the sample is limited, both the statistical results and the categories that emerged from the interview data should be viewed with caution. Future research that includes a larger sample from various geographic regions will help researchers and practitioners better understand the meaning of parent satisfaction with public school services.

Second, this study was exclusively based on parent report, so the limited information about school services that the parents could recall might have influenced the accuracy of the results. Although parents were asked to review their child's IEP before the initial meeting, some parents still had a difficult time remembering the services that their children received. Several parents made comments such as, "I should have brought his IEP" or "only if my memory serves me right" throughout the interview. Information about the school services for children with ASD collected in this study would have been more accurate if IEPs and other educational documents were reviewed at the time of the interviews.

Third, given that a child's severity of disability is a predictor of parent satisfaction (Bailey et al. 1999; Summers et al., 2005; Wang et al., 2004), information about children's functioning should have been collected to use in the data analysis. During the interviews, some parents complained that schools were not teaching academic skills,

whereas other parents complained that schools were not teaching basic adaptive skills. It seemed that children's functioning levels differently affected parents' responses, however a lack of information about children's functioning prevented further analysis.

Implications for Research and Practice

Implications for research. Given the importance of understanding parent satisfaction with public school services, more research is needed to examine the “meaning” of parent satisfaction. Results from this study suggest that only investigating the percentage of parents who are satisfied with services would not provide a complete picture of parent satisfaction. Parents might say they are satisfied but they may not truly be “satisfied,” or they may be satisfied with one type of service or with some staff but not with another service or staff member. Therefore, investigations that include both quantitative and qualitative research methods can help researchers and practitioners better understand parent satisfaction.

This study was conducted from parents' perspective. Examining the same topic, parent satisfaction, from the teacher's perspective would be informative because teachers and parents may have different perspectives regarding services systems (Sperry, Whaley, Shaw, & Brame, 1999). Examples of this line of inquiry include teachers' perceptions about each rationale that parents use to judge school services, and the differences between the rationales that parents and teachers use to rate their satisfaction with school services. Such investigations will help shape our understanding of satisfaction with school services.

Finally, the participants in this study included parents of children with ASD between 3 and 9 years of age. Future research should examine the satisfaction of parents

of older children with ASD because parent satisfaction (Bailey et al., 1999; Summers et al., 2005) and children's service experiences differ by ages (Goin-Kochel et al., 2007). Including multiple informants in measuring satisfaction with school services strengthens the social validity of school services (Foster & Mash, 1999). Each informant provides his or her own perspective and different perceptions from various stakeholders can help others understand and improve the social validity of school services.

Implications for practice. Several implications for practice are evident from this analysis, and are consistent with the recommendations made by participants to enhance parent satisfaction with school services. First, limited *parent-school communication* was the primary reason for parent dissatisfaction as well as the recommendation offered most frequently by parents. Previous studies have emphasized the powerful influence of parent-school communication on parent satisfaction with services (Renty & Roeyers, 2006; Whitaker, 2007; Zablosky et al., 2012). Additionally, the *No Child Left Behind Act* requires that school communicate with all families and help them get involved (Lewis, 2002). Therefore, as parent participants in the current study recommended, school staff need to use various methods to promote parent-school communication, including the use of technology. Parents' ideas surrounding using technology have been suggested as an effective way to increase parent-school communication in the literature. For example, emails (Bauch, 1989), school Web sites (Bigalow, 2003), and electronic portfolios (Havens, 2003) can address the barrier of time, and offer parents easy access to their children's school experiences and progress.

Second, *staff training* that helps all school staff including teachers, therapists, bus drivers, administrators, and custodians understand children with ASD and learn how to

interact with children with ASD is warranted. In the current study and in previous studies (Dymond et al., 2007; Renty & Roeyers, 2006; Sperry et al., 1999), staff competence was reported as an important rationale for judging parent satisfaction. Research shows that staff competence requires ASD-specific knowledge and skills. For example, Scheuermann, Webber, Boutot, and Goodwin (2003) examined the problems in professional development for teachers of children with ASD, and noted that pre-service teacher preparation programs should provide courses specialized in ASD or even offer an advanced degree in ASD. The authors also suggested distance training as an option to increase the number of trained teachers to work with children with ASD.

The final report of the National Research Council (NRC, 2001), based on a review of ten comprehensive intervention programs for children with ASD, recommended ABA as effective, along with several other programs including TEACCH (Schopler, Mesibov, & Hearsey, 1995) and Pivotal Response Training (Koegel, O'Dell, & Koegel, 1987). In this study, providing ABA services was one of the categories that emerged from parent recommendations for public school services, and the majority of parent participants wanted their children to have access to ABA services. Given that early intensive ABA is an effective treatment for children with ASD (NRC; Reichow & Wolery, 2009), ABA services should be available as an option for young children with ASD.

However, there is a shortage of trained ABA providers nationally. According to the Behavior Analyst Certification Board's registry, currently there are only 12,455 Board certified behavior analysts (BCBAs) in 50 states and the District of Columbia. Half of those states (26 states) have less than 100 BCBAs, with some states having as few as

six BCBAs (North Dakota and Wyoming) (Behavior Analyst Certification Board, 2013). It is not necessary that all the teachers working with children with ASD become BCBAs, but each school district should have several team members with expertise in ASD who can consult teachers whenever needed.

It is also important to remember that ABA is not an intervention that fits the needs of all children with autism. Previous studies have shown that some children with ASD did not progress or even regressed when provided with ABA services (Reichow & Wolery). Therefore, school staff should communicate regularly with parents about the fit between the child and ABA services, and they should also monitor and share child progress data frequently.

Third, half of our participants reported that their children with ASD have received private services, such as speech therapy, OT, and social skills training. It is interesting to realize that services such as speech therapy, OT, and social skills training were available in public schools therefore these children already had access to them at school. The only difference between public and private speech therapy, OT, and social skills training was the length of each session. Private providers provided up to twice as much therapy per week than the same service sessions provided by public schools. It seems that one of the main reasons that parents seek out private services for their young children is the “dosage” of services that children receive from public schools. Therefore, school districts should evaluate if they are providing an adequate amount of services for children.

However, the amount of services does not necessarily mean the number of hours a child actually works on any given skill. Rather, unlike sports lessons where the instructor teaches an hour and practice between lessons is the student’s responsibility, therapists

working with children with ASD should carefully plan for a child to practice learned skills in various environments (McWilliam, 1995). Therefore, child's learning and progress occurs between the therapies, which includes the rest of the day, not just within the therapy session.

Models such as routine-based early intervention (McWilliam, 2010) and embedded instruction (Wolery, Anthony, Caldwell, Snyder, & Morgante, 2002) support this idea and have been proven effective by many researchers (Daugherty, Grisham-Brown, & Hemmeter, 2001; Kurt & Tekin-Iftar, 2008). These models provide children with ASD with carefully planned instruction within the typical routines of general education classrooms and children's home environments, and therefore opportunities for practice are ongoing and occur naturally. The effective use of embedded instruction in public schools can meet parents' needs for increased amounts of services while offering children opportunities to practice, learn, and generalize important skills.

This study contributes to the literature on parent satisfaction with school services for children with ASD by examining the meaning of satisfaction. Using both qualitative and quantitative methodologies, the results show that ratings of satisfaction might not be an accurate measure of parent satisfaction. Rather, the rationales that parents used to judge satisfaction provide a more complete picture of parent satisfaction with school services. Understanding the meaning of parent satisfaction can assist professionals in developing effective and socially valid educational programs for children with ASD.

Tables

Table 1. Parent Satisfaction with the Services for Their Children with Autism Spectrum Disorders (ASD)

Authors (Year)	Research Questions	Design	Participants	Measure/ Instruments	Procedures; Data Analysis	Results
Bitterman et al. (2008)	To describe (a) the special education and related services received by children with ASD compared to other children with disabilities (b) parent satisfaction with those services	Parental interview (telephone survey, 96% response rate) Teacher questionnaire (mail survey, 79% response rate)	Parents of a subsample of 186 children with ASD (ages 3 to 5) in 2003- 2004 PEELS study	(a) Teacher questionnaire: special education programs and related services the child received (total of 24 services were listed), classroom staffing and materials, the child's interaction with typically developing peers, and transitions. (b) Parental interview: Child's health and disability, behaviors, school programs and services, special education and related services, child care, out- of-school activities, household, resources, family background. Satisfaction with services, including the overall quality of special education, program, teachers, and services received, any need for additional or other services, time with typically developing peers	Adjusted odds ratios to compare two groups (autism vs. other) Severity of impairment, total hours of service, and number of services received were used as a covariate in all analyses Family-wise error rate was controlled to avoid false positive decisions (Benjamini- Hochberg)	(a) The most common services: speech therapy (87.3%), occupational therapy (67.5%), behavior management programs (45.6%) (b) ASD group compared to other disability group: Uses more services in general (5.4 vs. 3.5) - AAC, behavior management plan, OT and one- to-one assistant (c) 30.3% of ASD group (11.9% other disability group) uses services that were not paid by the school district (d) Parent satisfaction : Good or excellent quality overall (86.8%). Satisfied with program, teachers, and services Less satisfied with the amount of services (time), wanted additional services Less satisfied with time spent with typically developing peers

Table 1 (cont.)

Authors (Year)	Research Questions	Design	Participants	Measure/ Instruments	Procedures; Data Analysis	Results
Kohler (1999)	<p>To examine the early intervention services received by 3- to 9-year-old children with autism and pervasive developmental disabilities.</p> <p>(a) What services are received? (b) How are families involved in the services? (c) How do providers ensure that the services have continuity? (d) Are services organized around a common set of child needs? (e) What problems do families report?</p>	<p>Telephone interview (using survey instrument, 83% response rate)</p>	<p>25 families of children with autism (ages 3- to 9) from four different EI agencies</p>	<p>A 20-item survey developed by the author to evaluate:</p> <p>(a) type and amount of services received, (b) accessibility of services, (c) nature and degree of family involvement, (d) continuity of services received from different providers, and (e) general satisfaction and concerns (Three questions about satisfaction: Do these services provide important benefits to your child or family? How could these services be improved?; Does your child or family have any additional needs that are not being met by existing services?; and Do you have any unresolved problems or concerns at this time?)</p>	<p>Two individuals independently transcribed and coded 25% of telephone interviews (at least 25% of the total sample)</p> <p>t-tests</p>	<p>(a) The families received a mean of 6.44 different services over a 6-month period.</p> <p>Type of services: 1. school placement and case management (100%) 2. speech therapy and therapeutic support (88%) 3. home-based services from a family coordinator (56%) 4. occupational therapy (48%)</p> <p>(b) Family involvement included: assisting professionals in planning and developing services (58%)</p> <p>(c) Concerns that emerged (from the three questions about satisfaction): 1. Existing services or providers were ineffective (64%) 2. Delays or inaccuracies in their child's diagnosis (44%) 3. Difficulties in accessing desired services (40%) 4. Needed greater allotments of existing services (40%)</p>

Table 1 (cont.)

Authors (Year)	Research Questions	Design	Participants	Measure/ Instruments	Procedures; Data Analysis	Results
Murphy & Ruble (2012)	To examine parent access to and satisfaction with services (medical, educational) for children with ASD in rural areas and compare results to parents from urban areas.	Survey was distributed (both hard copies and online); no response rate was reported	96 parents and caregivers of children with ASD (the mean age was 10.33, the range was not specified)	A 43-item survey developed by the authors: (a) Diagnosis and onset of intervention (b) Access I Parent satisfaction with educational services: "Overall, I am happy with my child's educational program at school" (d) Parent report of prioritized needs for specific services (e) Geographic location (rural vs. urban)	Mann-Whitney <i>U</i> -tests Chi-square analyses	(a) Parents in both groups (rural and urban): reported children were diagnosed after the age of 3, experienced challenges accessing services, trained professionals, and educators, indicated a relative lack of satisfaction with their children's educational services, and reported a need for social skills intervention. (b) Parents from rural areas reported significantly more difficulty accessing trained physicians and professionals.

Table 1 (cont.)

Authors (Year)	Research Questions	Design	Participants	Measure/ Instruments	Procedures; Data Analysis	Results
Renty & Roeyers (2006)	To identify and describe factors associated with variations in the level of parent satisfaction with formal support and education for children with ASD in Flanders	Survey with semi-structured in-depth interviews (64.3% response rate)	157 parents of individuals with ASD (ages 2.69 to 17.81, with an average of 8.87) Interviews with a stratified sample of 15 parents (with children ages 4 to 18)	A survey developed by the authors to assess: (a) general information about the family and the child with ASD, (b) information about the diagnostic process (i.e., age of diagnosis, first consultation, diagnostic centre, satisfaction, etc.), (c) information about the accessibility of ASD-specific services and schools, (d) information about received support and education (i.e., type, satisfaction , duration, involvement as parent, cooperation, etc.), (e) information about autism-specific knowledge and training, and (f) information regarding concerns and further needs.	Descriptive statistics Pearson correlation coefficients ANOVA Scheffe	(a) Diagnostic process: 51% of the parents were satisfied with the diagnostic process. (b) Access: Parents experienced difficulties with the accessibility of autism-specific service provisions. (c) Education and support: Satisfaction was higher for special schools than general education schools. Parents were satisfied with autism-specific support. (d) The interview revealed several factors affecting satisfaction : communication, parent involvement, the commitment and enthusiasm of the professionals, continuity of staffing, professionals understanding child's needs (knowledge of ASD), individualized services (e) 38% felt that they were well informed about ASD. (f) Parents were most concerned about child's social development, peer relationship, and friendship. (g) Predictors of overall satisfaction : parental involvement in formal support, knowledge of available service provisions, and time between first consultation and final diagnosis

Table 1 (cont.)

Authors (Year)	Research Questions	Design	Participants	Measure/ Instruments	Procedures; Data Analysis	Results
Spann et al. (2003)	To examine families' involvement in, and perceptions (pressing needs and satisfaction) of children's special education services.	Parent survey (telephone , 78.9% response rate)	45 parents of individuals with autism or pervasive developmental disabilities (ages 4 to 18) Recruited through a parent support group	15 survey questions (based on Kohler, 1999) to assess: (a) Educational placement and services (4 different services), (b) Communication with school (e.g., How often do you communicate with personnel at your child's school? Who do you communicate with? What is a common reason for this communication? What is your degree of satisfaction with home-school communication?), © Parent involvement in IEP (e.g., What is your degree of involvement with the IEP document and meeting? What is your degree of involvement with the IEP document and meetings? What is your overall degree of satisfaction with the IEP process?), and (d) Priorities and satisfaction with school personnel/ services (e.g., What are your most pressing concerns/priorities for your child at this time? To what extent are school personnel and/or services currently addressing these areas? What is your overall level of satisfaction with the school's ability to address your child's needs?)	40-60 minute telephone interviews were tape recorded and a survey response was marked by a rater later. Percentage for each response category	(a) Prevalent services: Speech therapy (73%), paraprofessional (55%), occupational therapy (40%), physical therapy (7%) (b) Communication: 82% moderate satisfaction , 18% low satisfaction © Involvement in IEP: high satisfaction (13%), moderate (73%), low (14%) (d) Priorities: social (51%), communication (42%), life skills (29%) (e) Overall satisfaction with the school's ability to address child's needs: 44% thought the school was not working enough on their priorities and its ability to meet their needs was moderate (47%).

Table 1 (cont.)

Authors (Year)	Research Questions	Design	Participants	Measure/ Instruments	Procedures; Data Analysis	Results
Thomas et al. (2007)	(a) Do families make use of intervention approaches? (b) What services do families use? (c) Does the intervention approach have an impact on the services the family uses? (d) Which services do families find useful and how satisfied are families with services overall?	Mail/phone survey and computer assisted telephone interview (no response rate was reported)	301 families with a child, 8 years old or younger with an average age of 6 in NC	A survey developed by the authors to assess: (a) Approach utilization (ABA, Lovaas, TEACCH, DAN [Defeat Autism Now], Denver model), (b) Autism-related services (e.g., in school and outside school), and (c) Family satisfaction	Means and standard deviations of sample characteristics, approach to care, service utilization, providers, family out of pocket expenditures, and satisfaction Chi square tests measure the difference in service use among families by type of service and approach to care	(a) TEACCH was the most commonly used approach (b) Use of several approaches mixed (c) Speech/language therapy at school was the most frequently used service (d) The majority (81%) of families reported they were satisfied with services, but 27% were currently using some service that they did not find useful.

Table 2. Examples of Services in the Reviewed Studies

	Therapies	Educational Practices and Interventions	Services for Families	Medical or extracurricular services
Bitterman et al. (2008)	OT, PT, speech	One-on-one aide, case management, interpreter, study skills assistance, behavior management program, AAC, remediation by a sped teacher	Training, counseling, or other services for family members	
Kohler (1999)	OT, PT, speech	Classroom aide, preschool placement, case manager, behavior service consultant	Parent classes, sibling support classes, respite care	
Murphy & Ruble (2012)	OT, speech	Case management, behavior management, social skills training, in-home therapy	Respite care	
Renty & Roeyers (2006)		Autism-specific support (e.g., home-based treatment, rehabilitation, specialized boarding school), multi-disability services (e.g., non-specialized home care)		School organizations (e.g., sports club)
Spann et al. (2003)	OT, PT, speech	Paraprofessional or aide		
Thomas et al. (2007)	OT, PT, speech, music therapy, sensory integration therapy, holding therapy, dolphin therapy	Case manager, behavioral specialist, social skills training, PECS, facilitated communication	Parent training classes, family counseling, sibling support groups, respite care, child care, after school care	Casein-free diet, gluten-free diet, acupuncture

Table 3. Aspects of School Services Used to Measure Parent Satisfaction

		Bitterman et al. (2008)	Kohler (1999)	Murphy & Ruble (2012)	Renty & Roeyers (2006)	Spann et al. (2003)	Thomas et al. (2007)
Asked to rate overall satisfaction		X		X	X		X
Child	Child outcomes (progress, benefit)		X				
	Addressing child needs, concerns, difficulties, individualized services		X		X	X	
Staff	Teachers	X					
	Teacher quality, competence, autism-specific knowledge				V		
	Continuity of staffing				V		
	Commitment and enthusiasm of the professionals				V		
Family	Family outcomes (benefit)		X				
	Family needs or concerns		X				
	Parent-school communication				V	X	
	Parent involvement (IEP involvement, reciprocal relationship)				V	X	
Service features	Program, academic standards, order and discipline	X					
	Services, autism-specific services	X			X		
	Usefulness of service						X
	Time with typical peers	X					
	Quantity of services	X					
	Other services needed	X					

Note: X = Items on the survey V = Qualitative analysis of the parent interview

Table 4. Survey Items Used to Measure Parent Satisfaction

Bitterman et al. (2008)	<ul style="list-style-type: none"> • Overall quality of special education and therapy services • Satisfaction with the child's program • Satisfaction with the child's teachers • Satisfaction with the child's services received • Child needs more of services already received • Child needs services not currently received 	Rating scale
Kohler (1999)	<ul style="list-style-type: none"> • Services provide important benefits to child or family and suggestions for service improvement • Child or family have additional needs that are not being met by existing services • Parent has unresolved problems or concerns 	Open-ended questions
Murphy & Ruble (2012)	<ul style="list-style-type: none"> • Parent is happy with child's educational program at school 	5-point Likert scale
Renty & Roeyers (2006)	<ul style="list-style-type: none"> • Overall quality of the received support and education of the child • The degree to which the school fulfilled the needs of the child with ASD • Satisfaction with the autism-specific support • Satisfaction with non-autism-specific support • Satisfaction with school organizations (e.g., sports clubs) 	10-point Likert scale 5-point Likert scale
Spann et al. (2003)	<ul style="list-style-type: none"> • Satisfaction with home-school communication • Satisfaction with the IEP process • Satisfaction with the school's ability to address the child's needs 	Rating scale (low, moderate, or high)
Thomas et al. (2007)	<ul style="list-style-type: none"> • Overall satisfaction with services (in school and outside of school) • Usefulness of each service 	Rating scale

Table 5. The Relationship Between Research Questions and Interview Guide

Research Questions	Interview Guide
1. What services do young children with ASD receive through their public school districts as reported by parents?	<p>Tell me about the services that your child has received from school within the last six months (along with the survey questions 12 and 13- <i>List the services that your child has received from a public/private school within the last six months.</i>)</p> <p>Are there any other services that currently are not available in school, but you would like your child to receive? Tell me about the private services that your child is receiving.</p>
2. How do parents rate their satisfaction with the school services that their children with ASD receive?	<p>How satisfied are you with the overall school services that your child has received? (completely satisfied/ mostly satisfied/ somewhat satisfied/ somewhat dissatisfied/ mostly dissatisfied/ completely dissatisfied)</p> <p>How would you rate your satisfaction with public school services within the last six months in terms of _____? (completely satisfied/ mostly satisfied/ somewhat satisfied/ somewhat dissatisfied/ mostly dissatisfied/ completely dissatisfied)</p> <p>How satisfied are you with the overall private services that your child has received within the last six months? (completely satisfied/ mostly satisfied/ somewhat satisfied/ somewhat dissatisfied/ mostly dissatisfied/ completely dissatisfied)</p>
3. What criteria do parents report that they use for judging satisfaction with services?	<p>To what are you responding when you say you are (completely satisfied/ mostly satisfied/ somewhat satisfied/ somewhat dissatisfied/ mostly dissatisfied/ completely dissatisfied)? [public services]</p> <p>To what are you responding when you say you are (completely satisfied/ mostly satisfied/ somewhat satisfied/ somewhat dissatisfied/ mostly dissatisfied/ completely dissatisfied)? [private services]</p>
4. What recommendations do parents have for public schools in order to improve school services for their children with ASD?	What advice would you offer to public schools to enhance parent satisfaction with school services for parents and their children with ASD?

Table 6. Demographic Information about the Participants

Parent	Relation ship to child	Child's gender	Child's race	Child's age	Child's diagnosis (Age diagnosed)	Parent's level of education	Marital status	Family income	Employment	Other child with disabilities
1	Father	Boy	White	5	Autistic disorder (2)	4-year college	Married	More than \$100,000	Home maker	Yes
2	Mother	Boy	Asian	6	Asperger's disorder (5)	Master's degree	Married	More than \$100,000	Home maker	No
3	Mother	Boy	White	9	Autistic disorder (3.5)	Less than high school	Married	\$20,000 to \$39,999	Employed (part-time)	Yes
4	Mother	Boy	Multi	4	PDD-NOS (2)	4-year college	Married	\$20,000 to \$39,999	Home maker	No
5	Mother	Boy	White	6	PDD-NOS (2.5)	4-year college	Married	More than \$100,000	Home maker	Yes
6	Father	Boy	White	6	PDD-NOS (3)	Some college but no degree	Married	\$40,000 to \$59,999	Employed (full-time)	No
7	Mother	Boy	White	5	Autistic disorder (2.5)	Some college but no degree	Divorced	Less than \$20,000	Other	No
8	Mother	Boy	White	7	Asperger's disorder (2)	Some college but no degree	Married	\$20,000 to \$39,999	Home maker	No
9	Father	Boy	White	9	Autistic disorder (3)	4-year college	Married	More than \$100,000	Employed (full-time)	Yes
10	Mother	Boy	White	6	Autistic disorder (2.5)	4-year college	Married	\$80,000 to \$99,999	Home maker	Yes
11	Father	Boy	White	6	Autistic disorder (3)	Some college but no degree	Married	\$60,000 to \$79,999	Employed (full-time)	No
12	Mother	Boy	White	8	PDD-NOS (6)	Some college but no degree	Married	\$60,000 to \$79,999	Home maker	No
13	Mother	Boy	White	3	PDD-NOS (2.5)	2-year college	Married	Less than \$20,000	Home maker	No
14	Mother	Boy	Black	9	PDD-NOS (3)	4-year college	Single	Less than \$20,000	Employed (part-time)	No
15	Mother	Girl	Black	7	PDD-NOS (3)	High school/ GED	Single	Less than \$20,000	Not employed	No
16	Mother	Girl	White	3	Autistic disorder (2.5)	2-year college	Married	\$20,000 to \$39,999	Employed (full-time)	Yes

Table 7. Definitions of Categories That Parents Used to Judge Satisfaction with Public School Services

Categories	Definitions
Inconsistency in satisfaction	Parent says that he or she is more satisfied with some services or staff but less satisfied or dissatisfied with other services or staff.
Satisfaction	
Child progress	Parent talks about the child making progress after receiving school services.
Staff competence	Parent talks about school staff, including child's one-on-one aide, understanding children with ASD, being equipped with effective strategies, and knowing how to teach children with ASD.
Parent-school communication	Parent talks about school staff communicating with them frequently about how the child is doing and what they are working on. This category includes staff communicating with parent using technology such as emails and video clips.
Parent voice	Parent talks about school staff listening to parent's ideas and suggestions in making educational decisions and delivering services. This category also includes comments about parent advocating for the child and self and fighting for their voices to be heard.
Collaborating among staff	Parent talks about school staff communicating with one another so that everyone knows what the goals are for the child with ASD, consults with one another, and works closely to achieve the same goals.
Staff attitudes	Parent talks about staff's care, enthusiasm, commitment, and how they do the best for the child with ASD.
Addressing child needs or concerns	Parent talks about school services addressing the child's needs or concerns adequately.
Better than nothing	Parent "has to be" satisfied with school services because he or she knows nothing to compare it against and cannot afford private services. This category also includes comments about parent feeling that school staff are doing at least something for the child.

Table 7 (cont.)

Dissatisfaction	
Parent-school communication	Parent complains about school staff infrequently communicating with them about how the child is doing and what they are working on. This category includes parent saying that school meetings are irregular and infrequent, and school staff do not provide the information that he or she would like to know.
Staff competence	Parent complains that school staff are not properly trained with children with ASD or other disabilities, do not understand the behaviors of children with ASD, and do not know about effective strategies for teaching and interacting children with ASD.
Amount of service	Parent talks about the school district providing only limited hours of services for the child with ASD. This category also includes comments about school districts not hiring enough professionals (e.g., speech therapist, ABA specialist) and paraprofessionals (e.g., one-on-one aide) who can provide more services for children with ASD.
Staff attitudes	Parent complains about school staff not caring, lacking enthusiasm and commitment, and not doing the best for the child with ASD.
Addressing child needs or concerns	Parent mentions that school services do not address the child's needs or concerns, or address only some of the child's needs (e.g., they address the child's speech issues but not his adaptive skills).
Parent voice	Parent talks about school staff not listening to parent's ideas and suggestions in making educational decisions and delivering services. This category also includes parent advocating for the child and self and fighting for their voices to be heard.
Something better out there	Parent says that they are less satisfied because there might be "the latest and greatest" services, programs, techniques, or schools somewhere that they do not know about.
Child progress	Parent talks about their dissatisfaction due to child not making adequate progress.

Table 8. Public and Private Education Services That Children with ASD Receive

Public school services	Private services
Speech therapy (14/16 children; 87.5%)	Speech therapy (5/8 children; 62.5%)
	OT (5/8 children; 62.5%)
OT (12/16 children; 75%)	ABA (4/8 children; 50%)
Social skills training (9/16 children; 56.3%)	Social skills training (2/8 children; 25%)
One-on-one aide (4/16 children; 25%)	Music therapy (1/8 children; 12.5%)
Individualized academic assistance (4/16 children; 25%)	Horseback riding (1/8 children; 12.5%)

Table 9. Parent Satisfaction with Public and Private Education Services

Service aspects	Weighted averages	Percentage of satisfied parents
Overall services: 1 st time	4.7	87.5% (14/16 parents)
2 nd time	4.4	87.5% (14/16 parents)
Time with typical peers	5.2	87.5% (14/16 parents)
Staff attitudes	5.1	87.5% (14/16 parents)
Parent involvement	4.9	93.8% (15/16 parents)
Addressing child needs or concerns	4.9	87.5% (14/16 parents)
Child progress	4.8	100% (16/16 parents)
Usefulness of service	4.8	87.5% (14/16 parents)
Addressing family needs or concerns	4.8	84.6% (11/13 parents)
Continuity of services	4.7	81.3% (13/16 parents)
Amount of service	4.5	81.3% (13/16 parents)
Parent-school communication	4.4	87.5% (14/16 parents)
Staff competence	4.2	75% (12/16 parents)
Family outcomes	4.0	67% (8/12 parents)
Overall private services	4.8	100% (8/8 parents)

Note: 1 = Completely dissatisfied; 2 = Mostly dissatisfied; 3 = Somewhat dissatisfied; 4 = Somewhat satisfied; 5 = Mostly satisfied; 6 = Completely satisfied

Table 10. Person Product-Moment Correlations between Parents' Satisfaction with Overall School Services and Each Aspect of School Services

Satisfaction with aspects of school services	Satisfaction with overall school services
Amount of service ^a	.72**
Addressing child needs or concerns ^a	.71**
Staff competence ^a	.65**
Staff attitudes ^a	.64**
Parent-school communication ^a	.56*
Child progress ^a	.54*
Addressing family needs or concerns ^c	.48
Usefulness of service ^a	.37
Family outcomes ^b	.37
Continuity of services ^a	.30
Parent involvement ^a	.32
Time with typical peers ^a	-.10

Note: ^a n = 16, ^b n = 14, ^c n = 15

* $p < .05$, ** $p < .01$

Table 11. Frequencies and Percentages of Each Category that Parents Used to Judge Satisfaction with Public School Services

Satisfaction			Dissatisfaction		
Categories	Responses	Parents	Categories	Responses	Parents
Child progress	15 (22%)	10 (63%)	Parent-school communication	27 (26%)	14 (88%)
Staff competence	13 (19%)	9 (56%)	Staff competence	19 (18%)	10 (63%)
Parent-school communication	13 (19%)	8 (50%)	Amount of service	15 (14%)	12 (75%)
Parent voice	10 (15%)	6 (33%)	Staff attitudes	12 (12%)	11 (69%)
Collaboration among staff	7 (10%)	6 (33%)	Addressing child needs or concerns	12 (12%)	8 (50%)
Staff attitudes	4 (6%)	4 (25%)	Parent voice	9 (9%)	6 (33%)
Addressing child needs or concerns	3 (4%)	3 (19%)	Something better out there	6 (6%)	5 (31%)
Better than nothing	3 (4%)	3 (19%)	Child progress	4 (4%)	4 (25%)
Total responses	68		Total responses	104	

Table 12. Definitions and Percentages of Each Category that Parents Used to Judge Satisfaction with Private Services

Categories	Responses	Parents	Definitions
Amount of service	10/33 (30%)	8 (50%)	Parent talks about private services supplementing public school services in terms of the amount and frequency of services.
ABA	9/33 (27%)	6 (33%)	This category includes responses regarding the private services based on the principles of ABA. Examples includes a child making progress with private ABA services, a parent supporting the efficacy of ABA, and a parent asking school districts to provide ABA services.
Staff competence	6/33 (18%)	5 (31%)	Parent talks about private service providers understanding children with ASD and knowing how to teach them. This category also includes private service providers “leading and guiding” public school staff by sharing the techniques they use for children with ASD.
Parent-provider communication	4/33 (12%)	4 (25%)	Parent talks about private service providers communicating with parents regularly and frequently about how the child is doing and what they are working on.
Child progress	4/33 (12%)	4 (25%)	Parent talks about child making progress after receiving private services.

Table 13. Definitions and Percentages of Each Category Emerged from Parent Recommendations for Public School Services

Categories	Responses	Parents	Definitions
Parent-school communication	15/51 (29%)	12 (75%)	Parent suggests school staff communicate with parents more frequently about how the child is doing and what they are working on. Parent also says there should be regular meetings, and school staff should use technology (e.g., emails and video clips) to increase parent-school communication.
Staff training	9/51 (18%)	8 (50%)	Parent suggests all school staff including teachers, therapists, administrative staff, and custodial staff receive training to help them better understand ASD and learn effective strategies for teaching new skills to, and interacting with children with ASD and other children with disabilities.
Family and peer training	9/51 (18%)	7 (44%)	Parent suggests school districts provide training (a) for parents to help them better understand ASD and learn effective strategies and (b) for siblings and peers to promote positive attitudes toward children with ASD.
Individualized classroom support	5/51 (10%)	5 (31%)	Parent suggests the child with ASD receive services that are tailored to his or her needs. Parent's comments about the need for a one-on-one aide also are included in this category.
Staff attitudes	5/51 (10%)	5 (31%)	Parent suggests school staff be more caring, enthusiastic and committed, and do their best for students.
Amount of service	3/51 (6%)	3 (19%)	Parent suggests school districts provide more hours of services than are currently available, such as speech therapy and OT.
ABA	3/51 (6%)	3 (19%)	Parent suggests school districts make ABA services available for children with ASD.

Figures

Figure 1. Data Collection and Data Analysis Procedures.

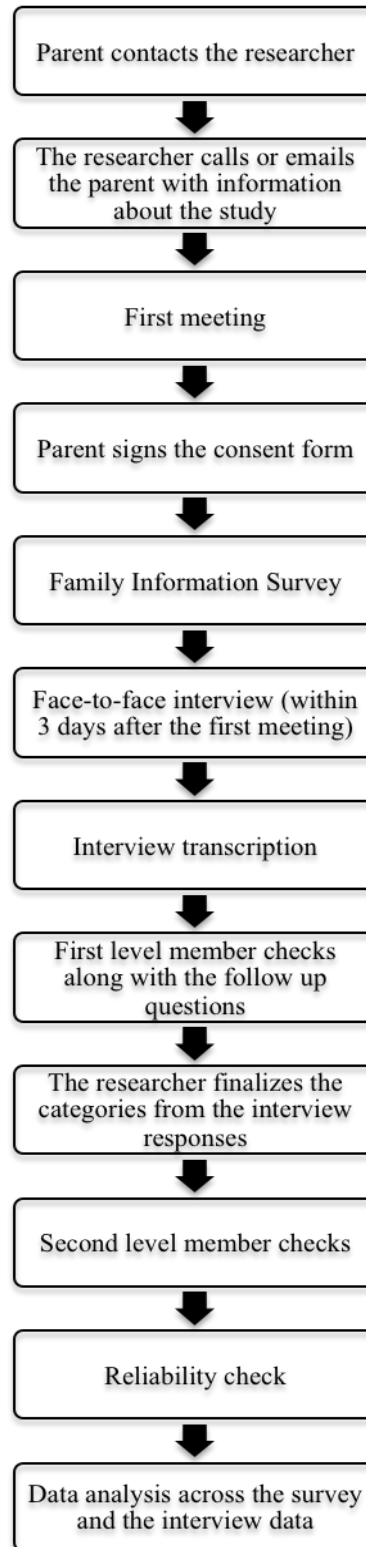


Figure 2. An Example of the Linkages Between Texts, Codes, and Memos.

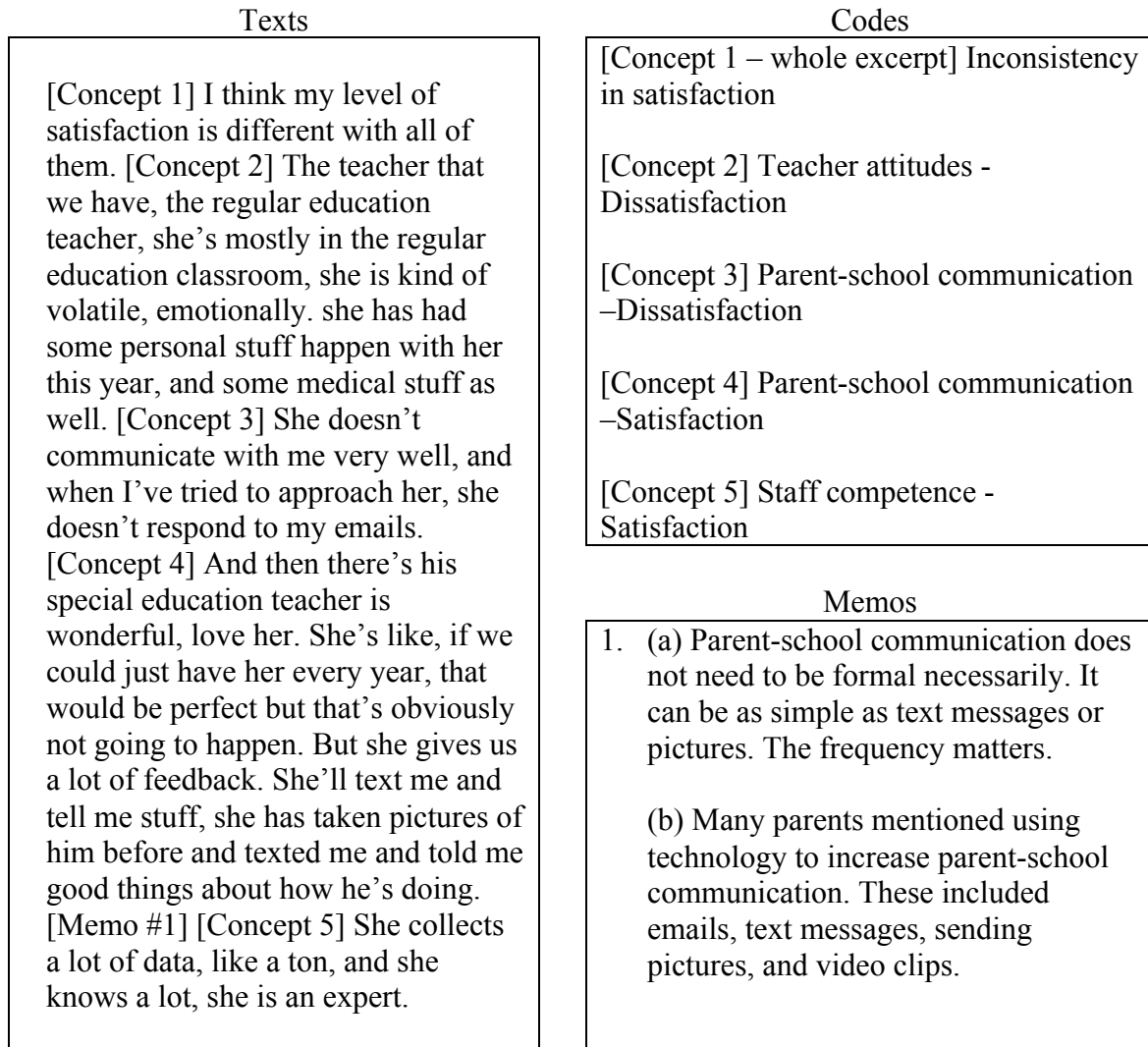


Figure 3. Case-by-Category Matrix between Parents and the Rationales They Used for Judging Satisfaction with School Services.

Parents (survey) Categories (interview)		Somewh at dissatis- fied		Somewhat satisfied				Mostly satisfied							Completely satisfied		
		2	16	1	12	13	14	3	4	5	7	8	9	10	6	11	15
Satisfaction	Child progress					X		X	X	X	X	X	X		X	X	X
	Staff competence			X				X	X	X	X	X	X	X	X		
	Parent-school communication							X	X		X	X	X	X		X	X
	Parent voice							X					X	X		X	X
	Collaboration among staffs			X						X	X		X	X	X		X
	Staff attitudes				X		X		X			X					
	Addressing child needs or concerns									X			X		X		
	Better than nothing						X	X							X		
Dissatisfaction	Parent-school communication	X	X	X	X	X	X	X	X		X	X	X	X		X	X
	Staff competence	X	X		X	X	X	X				X		X		X	X
	Amount of service		X	X		X	X	X	X	X	X	X		X		X	X
	Staff attitudes		X	X	X	X	X					X	X	X	X	X	X
	Addressing child needs or concerns		X			X	X		X		X	X		X			X
	Parent voice	X				X		X		X	X	X					
	Something better out there	X		X				X		X			X				
	Child progress		X			X	X						X				

Note: X = Categories that each parent used to judge satisfaction with public school services

Shaded cells indicate the categories with which parents were both satisfied and dissatisfied.

Parents 3, 5, 8, 10 changed their ratings to Somewhat Satisfied when asked a second time.

Figure 4. Consistency in Parents' Responses Across Survey and Interview Topics.

Categories	Satisfaction	Dissatisfaction	Private services	Parent recommendations
Service aspects				
<i>Amount of service*</i>		X	X	X
<i>Addressing child needs or concerns*</i>	X	X		
<i>Staff competence*</i>	X	X	X	
<i>Staff attitudes*</i>	X	X		X
<i>Parent-school communication*</i>	X	X	X	X
<i>Child progress*</i>	X	X	X	
Addressing family needs or concerns				
Usefulness of service				
Family outcome				
Parent involvement				
Continuity of services				
Time with typical peers				

Note: Asterisk (*) indicates that a statistically significant correlation was found between overall satisfaction and the aspects of school services

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Appendix A

Recruitment Flyer



Parents of Children with Autism Spectrum Disorders (ASD) Needed for Research on **Parent Satisfaction with School Services**

University of Illinois Researchers are looking for volunteers to take part in a study of **Parent Satisfaction with School Services for Children with ASD.**



Please consider participating in this study if:

- You are a parent who has **a child with ASD** who qualifies for special education and related services (has an IEP or IFSP)
- Your child is between the **ages of 3 and 9**, AND
- Your child has been receiving services in the **public education system for at least 6 months.**

For more Information about this study,

Please contact

Hyejin Park

park2@illinois.edu

217-333-0260 or

Micki Ostrosky

ostrosky@illinois.edu

217-333-0260

Department of
Special Education
University of Illinois

As participant in this study, you will complete a 30-minute family information **survey** and be **interviewed face-to-face** for approximately one hour about school services that your child with ASD is receiving and your satisfaction with the services. We may contact you for **a phone interview** for additional information if needed. We will also send you the transcription of your interview and the themes we found from your interview to insure they are accurate reflection of what you said. We will ask you to send **feedback** to us.

In appreciation for your time, you will receive **\$50** at the completion of the study.

Appendix B

Consent Letter



CONSENT LETTER FOR INTERVIEW **University of Illinois at Urbana-Champaign**

Dear Parent:

My name is Hyejin Park, and I am a doctoral student in the Special Education Department at the University of Illinois, Urbana-Champaign. My advisors are Drs. Ostrosky and Halle who are the Responsible Project Investigators of the research study described here. This letter is an invitation to participate in a study that we are conducting to understand *parent satisfaction with the school services that their young children with Autism Spectrum Disorders (ASD) are receiving*. The information we obtain from this study should be invaluable in improving public school services for children with ASD.

Participation in this study is voluntary. If you agree to participate, you will be involved in the following procedures:

(a) *A face-to-face interview*: You will be interviewed for approximately one hour in a mutually agreed upon location and time. The interview will be audio recorded for accurate data collection and transcription. The questions will focus on school services that your child with ASD is receiving; your satisfaction with the school services that your child with ASD is receiving; and some family demographic information. You may decline to answer any of the interview questions if you so wish. You are free to withdraw from this study at any time for any reason. *You will receive \$50* at the end of the study in gratitude for your participation.

(b) *A follow-up interview*: We may contact you for a phone interview to clarify the meaning of your responses or ask for additional information if needed. This phone interview will also be audio-taped.

(c) *Checking the accuracy of the data*: We will send the transcription of your interview to you to make sure it is free of error. We will also send you the themes we found from your interview to insure that they are an accurate reflection of what you said. We will ask you to send feedback to us.

All information you provide will be confidential. Notes, tapes, and transcriptions collected during this study will be retained for two years in a secure location and then destroyed. Your name or any other personal identifying information (e.g., name of the school or the teacher) will not appear in the study report. Only the researchers who are

involved in this study will have access to the original data. There are no known or anticipated risks to you as a participant in this study.

Please consider participating in this study if you meet ALL of the following criteria:

- (a) You are a parent who has at least one child with ASD who qualifies for special education and related services
- (b) Your child's age is between 3 and 9 years, and
- (c) Your child has received services through the public education system for at least six months

Please sign this consent form and return it to Hyejin Park, the Project Coordinator, if you are willing to participate in the study. Attached is a copy of this consent form. Please keep it for your records.

If you have any questions or concerns about this study, please contact Hyejin Park (217-333-0260; park2@illinois.edu), Micki Ostrosky (217-333-0260; ostrosky@illinois.edu), or Jim Halle (217-333-0260; halle@illinois.edu). You may call collect. We will be happy to answer any of your questions. If you have any questions about your rights as a participant in this study or any concerns or complaints, please contact the University of Illinois Institutional Review Board at 217-333-2670, irb@illinois.edu. You may call these numbers collect if you identify yourself as a research participant.

Thank you for considering participating in this important study.

Sincerely,

Hyejin Park, M.A., Ed.M.
Micki Ostrosky, Ph.D.
Jim Halle, Ph.D.
Department of Special Education
College of Education
University of Illinois at Urbana-Champaign

I am 18 years of age or older and I have read and understand the above consent form and voluntarily agree to participate in this study.

Name (please print): _____

Signature: _____

Date: _____

Contact information (email/ phone): _____

Appendix C

Family Information Survey



FAMILY INFORMATION SURVEY

Thank you very much for agreeing to participate in this study. It is our hope that the results of this study will be useful in improving services for young children with autism spectrum disorders (ASD).

This Family Information Survey includes questions about your child's characteristics and family demographics. This survey will take less than 20 minutes to complete. You may decline to answer any of the questions for any reason. All of the information collected will be used for research purposes only and will be kept confidential. Your name or any other identifying information will not appear in the study report.

Please send the completed survey back to Hyejin Park, using the enclosed **self-addressed stamped envelope**. Or, if you prefer, you can choose to complete this survey **online**. Go to the link: www.surveymonkey.com/s/satisfaction_services

Thank you very much.

1. Please tell us about yourself.

Age	Gender	Race/ Ethnicity	Country of origin
	M F	Are you of Hispanic, Latino, or Spanish origin? Yes or No 1- American Indian or Alaskan Native 2- Asian 3- Black or African American 4- Native Hawaiian or other Pacific Islander 5- White 6- Other Race (specify:)	

2. What is your current marital status?

- ☐ Single, never married
- ☐ Married
- ☐ Separated
- ☐ Divorced
- ☐ Widowed
- ☐ Other

3. What is the highest level of school you have completed or the highest degree you have received?

- ☐ Less than High School
- ☐ High School/ GED
- ☐ Some college but no degree
- ☐ 2-year College Degree
- ☐ 4-year College Degree
- ☐ Master's Degree
- ☐ Doctoral Degree and above

4. Which of the following categories best describes your employment status?

- ☐ Employed (Full-time)
- ☐ Employed (Part-time)
- ☐ Not employed
- ☐ Retired
- ☐ Home maker
- ☐ Student
- ☐ Other (specify: _____)

5. When you estimate total family income for you and for all your family members living with you during 2012, what would you say was your total family income (including the income from salary, rents, interest on stocks, bonds, or savings accounts)?

- ☐ Less than \$20,000
- ☐ \$20,000 to \$39,999
- ☐ \$40,000 to \$59,999
- ☐ \$60,000 to \$79,999
- ☐ \$80,000 to \$99,999
- ☐ More than \$100,000

6. How many years have you lived in Champaign-Urbana area or near Champaign-Urbana? _____ years

7. How many people currently live in your household?

Adults and children (under 21)

8. Do any of your other children have any disabilities?

☐ NO ☐ Yes (please describe: _____)

9. Please tell us about your child who has been diagnosed with an Autism Spectrum Disorder (ASD). If you have more than one child who has ASD, please select one child that you would like to answer about.

Age	Gender	Ethnicity	Diagnosis	Age when diagnosed
	M F	Is your child of Hispanic, Latino, or Spanish origin? Yes or No <input type="checkbox"/> American Indian or Alaskan Native <input type="checkbox"/> Asian <input type="checkbox"/> Black or African American <input type="checkbox"/> Native Hawaiian or other Pacific Islander <input type="checkbox"/> White <input type="checkbox"/> Other Race (<i>Please specify:</i> _____)	___Autistic disorder ___Asperger's disorder ___PDD-NOS Other (_____)	

10. How would you rate your child's communication development?

___Very challenging
 ___Somewhat challenging
 ___A little challenging
 ___Not challenging (comparable to typical peers)

11. How would you rate your child's social development?

___Very challenging
 ___Somewhat challenging
 ___A little challenging
 ___Not challenging (comparable to typical peers)

12. How would you rate your child's behavior?

___Very challenging
 ___Somewhat challenging
 ___A little challenging
 ___Not challenging (comparable to typical peers)

13. On average, what percentage of time does your child spend in each of the following environments each week?

___ % Regular classroom with typical peers
 ___ % Resource room with other children with disabilities
 ___ % Therapy rooms (e.g., OT, PT, speech)
 ___ % Outside the classroom to receive services other than therapies (e.g., social skills training in a small room)
 ___ % Other (please specify: _____)

12. List the services that your child has received from a PUBLIC school within the last six months. Examples of services include speech therapy, occupational therapy, classroom aide, social skills training, and parent training.

<u>PUBLIC school</u> services	Number of sessions per week	Minutes per session	With typical peers?
			Yes/ No
			Yes/ No
			Yes/ No
			Yes/ No
			Yes/ No
			Yes/ No
			Yes/ No
			Yes/ No
			Yes/ No

13. If your child has received any PRIVATE/SUPPLEMENTAL services outside the school within the last six months, please list the services below.

<u>PRIVATE/ SUPPLEMENTAL</u> services	Number of sessions per week	Minutes per session	With typical peers?
			Yes/ No
			Yes/ No
			Yes/ No
			Yes/ No
			Yes/ No
			Yes/ No
			Yes/ No
			Yes/ No

14. How would you rate your knowledge of Autism Spectrum Disorders (ASD) (For example, diagnosis and characteristics of ASD)?

- ☐ Very knowledgeable
- ☐ Somewhat knowledgeable
- ☐ Average
- ☐ Somewhat unknowledgeable
- ☐ Very unknowledgeable

15. How would you rate your knowledge of teaching strategies for working with children with Autism Spectrum Disorders (ASD)?

- ☐ Very knowledgeable
- ☐ Somewhat knowledgeable
- ☐ Average
- ☐ Somewhat unknowledgeable
- ☐ Very unknowledgeable

THANK YOU VERY MUCH!!

Appendix D

Interview Guide

INTERVIEW GUIDE: INTERVIEWER

1. Tell me about your child.

- 1-1. () was diagnosed at age (). What happened next? How did he (she) start receiving services?
- 1-2. You rated your child's (communication, social, behavioral) development as (very challenging, somewhat challenging, a little challenging, not challenging and comparable to peers), can you tell me more about that?
- 1-3. What are ()'s strengths and weaknesses?

2. Tell me about yourself.

- 2-1. You said, your knowledge of ASD is (very knowledgeable/ somewhat knowledgeable/ average/ somewhat unknowledgeable/ very unknowledgeable), what do you mean?
- 2-2. You said, your knowledge of teaching strategies for working with children with ASD is (very knowledgeable/ somewhat knowledgeable/ average/ somewhat unknowledgeable/ very unknowledgeable), what do you mean?
- 2-3. What do you expect from the public schools? What do you expect from the teachers? What do you expect your child to get from the services that he (she) is receiving?

3. How satisfied are you with the overall school services that your child has received within the last six months?

- ☐ Completely satisfied
- ☐ Mostly satisfied
- ☐ Somewhat satisfied
- ☐ Somewhat dissatisfied
- ☐ Mostly dissatisfied
- ☐ Completely dissatisfied

4. Different people have different meanings of the word, "satisfaction." To what are you responding when you say you are (completely satisfied/ mostly satisfied/ somewhat satisfied/ somewhat dissatisfied/ mostly dissatisfied/ completely dissatisfied)?

Satisfied:

4-1. Can you share examples of episodes or situations of services that are related to your satisfaction?

4-2. You said you were (mostly or somewhat) satisfied. What caused you to be less than completely satisfied?

Dissatisfied:

4-3. Can you share examples of episodes or situations of services that are related to your dissatisfaction?

4-4. You said you were (mostly or somewhat) dissatisfied. What enabled you to be less than completely dissatisfied?

5. Tell me about the services that your child has received from school within the last six months.

5-1. Service features

5-1-a. Time with typical peers: You said your child spends some time with typical peers during (service name). Can you tell me more about that?

5-1-b. Usefulness: Do you think (service name) is useful? What do you mean?

5-2. Child

5-2-a. Child progress: Tell me your personal opinion. What makes you believe that your child is progressing or not progressing (e.g., teacher comments, child portfolio, changes you see at home)?

5-2-b. Child needs or concerns: Do the school services address these and, if so, how well? If not, what have you done to make it happen?

5-3. Staff (administrative staff, certified staff, support staff)

5-3-a. Provider competence: in your opinion, how competent do you believe these staff members to be (e.g., their degrees or training, any information you have about their experience)?

5-3-b. Provider attitudes: What do you think about the way your child is treated, the attitudes of the school staff members involved in the service delivery?

5-3-c. Continuity of services: Is staff turnover within a year or from year-to-year high?

5-4. Family

5-4-a. Family outcomes: Is there any benefit that has accrued to your family associated with the school services?

5-4-b. Family needs or concerns: Do the school services address these and, if so, how well? What are your family needs or concerns that were not met?

5-4-c. Parent-school communication: Do school staff clearly communicate with you about the services they provide so that you can carry them over in the home? In what way and how often do they communicate with you?

5-4-d. Parent involvement: School meetings, IEP meetings. Tell me about how your ideas and priorities are addressed in meetings or elsewhere. Do they listen to you?

6. How would you rate your satisfaction with public school services within the last six months in terms of __?

Amount of service	Completely satisfied/ Somewhat dissatisfied/	Mostly satisfied/ Mostly dissatisfied/	Somewhat satisfied/ Completely dissatisfied
Time with typical peers	Completely satisfied/ Somewhat dissatisfied/	Mostly satisfied/ Mostly dissatisfied/	Somewhat satisfied/ Completely dissatisfied
Usefulness of service	Completely satisfied/ Somewhat dissatisfied/	Mostly satisfied/ Mostly dissatisfied/	Somewhat satisfied/ Completely dissatisfied
Child progress	Completely satisfied/ Somewhat dissatisfied/	Mostly satisfied/ Mostly dissatisfied/	Somewhat satisfied/ Completely dissatisfied
Addressing child needs or concerns	Completely satisfied/ Somewhat dissatisfied/	Mostly satisfied/ Mostly dissatisfied/	Somewhat satisfied/ Completely dissatisfied
Staff competence (ASD specific knowledge)	Completely satisfied/ Somewhat dissatisfied/	Mostly satisfied/ Mostly dissatisfied/	Somewhat satisfied/ Completely dissatisfied
Staff attitudes	Completely satisfied/ Somewhat dissatisfied/	Mostly satisfied/ Mostly dissatisfied/	Somewhat satisfied/ Completely dissatisfied
Continuity of services	Completely satisfied/ Somewhat dissatisfied/	Mostly satisfied/ Mostly dissatisfied/	Somewhat satisfied/ Completely dissatisfied
Family outcomes	Completely satisfied/ Somewhat dissatisfied/	Mostly satisfied/ Mostly dissatisfied/	Somewhat satisfied/ Completely dissatisfied
Addressing family needs or concerns	Completely satisfied/ Somewhat dissatisfied/	Mostly satisfied/ Mostly dissatisfied/	Somewhat satisfied/ Completely dissatisfied
Parent-school communication	Completely satisfied/ Somewhat dissatisfied/	Mostly satisfied/ Mostly dissatisfied/	Somewhat satisfied/ Completely dissatisfied
Parent involvement	Completely satisfied/ Somewhat dissatisfied/	Mostly satisfied/ Mostly dissatisfied/	Somewhat satisfied/ Completely dissatisfied

7. Are there any other services that currently are not available in school, but you would like your child to receive?

7-1. Tell me about the private services that your child is receiving.

7-1-a. Time with typical peers: You said your child spends some time with typical peers during (service name). Can you tell me more about that?

7-1-d. Usefulness: Do you think (service name) is useful? What do you mean?

- 8. How satisfied are you with the overall private services that your child has received within the last six months?**

☐ Completely satisfied
☐ Mostly satisfied
☐ Somewhat satisfied
☐ Somewhat dissatisfied
☐ Mostly dissatisfied
☐ Completely dissatisfied

8-1. To what are you responding when you say you are (completely satisfied/ mostly satisfied/ somewhat satisfied/ somewhat dissatisfied/ mostly dissatisfied/ completely dissatisfied)?

- 9. With all of the things we've talked about and other thoughts that you may have, your satisfaction with your child's overall school services might have remained the same or changed; either makes sense. So, I'm asking you the same question one more time just to check. How satisfied are you with the overall school services that your child has received within the last six months?**

☐ Completely satisfied
☐ Mostly satisfied
☐ Somewhat satisfied
☐ Somewhat dissatisfied
☐ Mostly dissatisfied
☐ Completely dissatisfied

- 10. What went through your mind *this time*, in other words, to what are you responding when you report that you are (completely satisfied/ mostly satisfied/ somewhat satisfied/ somewhat dissatisfied/ mostly dissatisfied/ completely dissatisfied)?**

Different rating:

10-1. What made you change your rating this time?

- 11. What advice would you offer to public schools to enhance parent satisfaction with school services for parents and their children with ASD?**

- 12. Anything else you would like to share?**

THANK YOU!!

Appendix E

Interview Guide for Parents

INTERVIEW GUIDE: PARENTS

1. Tell me about your child.

- 1-4. Diagnosis
- 1-5. Communication, social development and behavior
- 1-6. Strengths and weaknesses

2. Tell me about yourself.

- 2-4. Knowledge of ASD
- 2-5. Knowledge of teaching strategies for working with children with ASD
- 2-6. Expectations

3. How satisfied are you with the overall PUBLIC school services that your child has received within the last six months?

- ☐ Completely satisfied
- ☐ Mostly satisfied
- ☐ Somewhat satisfied
- ☐ Somewhat dissatisfied
- ☐ Mostly dissatisfied
- ☐ Completely dissatisfied

4. Different people have different meanings of the word, “satisfaction.” To what are you responding when you say you are (completely satisfied/ mostly satisfied/ somewhat satisfied/ somewhat dissatisfied/ mostly dissatisfied/ completely dissatisfied)?

5. Tell me about the services that your child has received from PUBLIC school within the last six months.

- 5-1. Service features
 - 5-1-a. Time with typical peers
 - 5-1-b. Usefulness
- 5-2. Child
 - 5-2-a. Child progress
 - 5-2-b. Child needs or concerns

5-3. Staff (administrative staff, certified staff, support staff)

5-3-a. Provider competence

5-3-b. Provider attitudes

5-3-c. Continuity of services

5-4. Family

5-4-a. Family outcomes

5-4-b. Family needs or concerns

5-4-c. Parent-school communication

5-4-d. Parent involvement

6. How would you rate your satisfaction with public school services within the last six months in terms of _____?

Amount of service	Completely satisfied/ Somewhat dissatisfied/	Mostly satisfied/ Mostly dissatisfied/	Somewhat satisfied/ Completely dissatisfied
Time with typical peers	Completely satisfied/ Somewhat dissatisfied/	Mostly satisfied/ Mostly dissatisfied/	Somewhat satisfied/ Completely dissatisfied
Usefulness of service	Completely satisfied/ Somewhat dissatisfied/	Mostly satisfied/ Mostly dissatisfied/	Somewhat satisfied/ Completely dissatisfied
Child progress	Completely satisfied/ Somewhat dissatisfied/	Mostly satisfied/ Mostly dissatisfied/	Somewhat satisfied/ Completely dissatisfied
Addressing child needs or concerns	Completely satisfied/ Somewhat dissatisfied/	Mostly satisfied/ Mostly dissatisfied/	Somewhat satisfied/ Completely dissatisfied
Staff competence (ASD specific knowledge)	Completely satisfied/ Somewhat dissatisfied/	Mostly satisfied/ Mostly dissatisfied/	Somewhat satisfied/ Completely dissatisfied
Staff attitudes	Completely satisfied/ Somewhat dissatisfied/	Mostly satisfied/ Mostly dissatisfied/	Somewhat satisfied/ Completely dissatisfied
Continuity of services	Completely satisfied/ Somewhat dissatisfied/	Mostly satisfied/ Mostly dissatisfied/	Somewhat satisfied/ Completely dissatisfied
Family outcomes,	Completely satisfied/ Somewhat dissatisfied/	Mostly satisfied/ Mostly dissatisfied/	Somewhat satisfied/ Completely dissatisfied
Addressing family needs or concerns	Completely satisfied/ Somewhat dissatisfied/	Mostly satisfied/ Mostly dissatisfied/	Somewhat satisfied/ Completely dissatisfied
Parent-school communication	Completely satisfied/ Somewhat dissatisfied/	Mostly satisfied/ Mostly dissatisfied/	Somewhat satisfied/ Completely dissatisfied
Parent involvement	Completely satisfied/ Somewhat dissatisfied/	Mostly satisfied/ Mostly dissatisfied/	Somewhat satisfied/ Completely dissatisfied

7. **Are there any other services that currently are not available in school, but you would like your child to receive?**

7-1. Tell me about the private services that your child is receiving.

8. **How satisfied are you with the overall PRIVATE services that your child has received within the last six months?**

☐ Completely satisfied
☐ Mostly satisfied
☐ Somewhat satisfied
☐ Somewhat dissatisfied
☐ Mostly dissatisfied
☐ Completely dissatisfied

8-1. To what are you responding when you say you are (completely satisfied/ mostly satisfied/ somewhat satisfied/ somewhat dissatisfied/ mostly dissatisfied/ completely dissatisfied)?

9. **With all of the things we've talked about and other thoughts that you may have, your satisfaction with your child's overall PUBLIC school services might have remained the same or changed; either makes sense. So, I'm asking you the same question one more time just to check. How satisfied are you with the overall PUBLIC school services that your child has received within the last six months?**

☐ Completely satisfied
☐ Mostly satisfied
☐ Somewhat satisfied
☐ Somewhat dissatisfied
☐ Mostly dissatisfied
☐ Completely dissatisfied

10. **What went through your mind *this time*, in other words, to what are you responding when you report that you are (completely satisfied/ mostly satisfied/ somewhat satisfied/ somewhat dissatisfied/ mostly dissatisfied/ completely dissatisfied)?**

Different rating:

10-1. What made you change your rating this time?

11. **What advice would you offer to public schools to enhance parent satisfaction with school services for parents and their children with ASD?**

12. **Anything else you would like to share?**

THANK YOU!!